DOCUMENT RESUME

ED 093 074 EA 006 273

AUTHOR	Ewan, E. A., Ed.
TITLE	Management of Resources. Proceedings of the Annual Conference of the British Educational Administration Society. (2nd, Edinburg, Scotland, November 10, 1973).
INSTITUTION	British Educational Administration Society.
PUB DATE	Mar 74
NOTE	36p.; Published as part of subscription to Educational Administration Bulletin
AVAILABLE FROM	Mr. D. L. Parkes, Associate Editor and Business Manager, Educational Administration Bulletin, Further Education Staff College, Coombe Lodge, Blagdon, Bristol BS18 6RS (England) (1 pound)
EDRS PRICE	MF-$0.75 HC-$1.85 PLUS POSTAGE
DESCRIPTORS	Conference Reports; *Educational Administration; Educational Assessment; Educational Finance; Educational Needs; *Educational Planning; Educational Research; Elementary Schools; Higher Education; Interinstitutional Cooperation; Models; Problem Solving; *Resource Allocations; Secondary Schools; *Staff Utilization; Teacher Supply and Demand
IDENTIFIERS	*Great Britain; Resource Management

ABSTRACT

This publication contains four conference addresses, responses to those addresses, and a synopsis of eight discussion group reports. The report begins with a paper on staff resources in secondary schools, then considers the problem of assessing the staffing needs of secondary schools and ensuring an adequate supply of qualified secondary teachers, and attempts to establish for Scotland a rationale for the apportionment of teaching resources to and within the secondary school sector. The next paper discusses the joint use of resources by schools and Further Education colleges. It considers the reorganization of educational facilities for the 11-18 age group. The synopsis of eight discussion group reports centers on key aspects of the first two papers. The third paper considers resources for education and their management in British education; the partnership between central and local government and the organized teaching profession; and the system of central planning and control of public educational expenditure exercised by the central government. The final paper concentrates on the implications for education of corpporate management style implementation at regional and divisional levels in the new structure of local government, with particular emphasis on information, evaluation, and accountability. (Author/DN)

Proceedings of the second annual conference of the British Educational Administration Society

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Management of Resources

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ED 093074

Management of Resources

The Proceedings of the second annual conference of the British Educational Administration Society held at Moray House College of Education, Edinburgh, Saturday 10th November, 1973.

Edited for the Society by
Dr. E. A. Ewan
Moray House College of Education

March 1974

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Preface

This record of the Second Annual Conference of the B.E.A.S. shows that the Society continues to concern itself with issues of central interest to those involved in educational administration in the broadest sense and that it continues to attract the attention of a wide cross-section of those so interested. The Conference theme of Management of Resources could hardly be more topical and discussions at the Conference were particularly valuable because of the range of perspectives of those taking part. It is perhaps worth emphasising again that the sole criterion for membership of the Society is interest in educational administration—in whatever field.

The Society was sorry that Lord Morris of Grasmere, its Honorary President, was unable to be at the Conference and also that Dr. McIntosh, Principal of Moray House College, who has done so much on behalf of the Conference, had to cry off at the last minute through illness. However, an encouraging number of members made the trip to Edinburgh and the Society is especially grateful to Dr. Edmund Ewan for his unobtrusive management of the Conference "on the day" and his careful editing of its proceedings.

Members of the Society now look forward to acting as hosts to educational administrators from many parts of the world who will be attending the International Intervisitation Programme in Bristol, Glasgow and London in July. The Programme is being organised by the Society on behalf of the Commonwealth Council for Educational Administration (of which the Society is a constituent member) and plans are now well advanced. We look forward keenly to the personal contacts which the Programme will bring and the opportunities for developing our understanding of educational administration which it will afford.

E. W. H. Briault

March 1974.

Staff Resources in Secondary Schools

J. Forsyth McGarrity

Her Majesty's Senior Chief Inspector of Schools Scottish Education Department

The National Problem

The problem of assessing the staffing needs of secondary schools and of ensuring an adequate supply of qualified secondary teachers is but one of the wider problems associated with the total system of teacher supply and demand. These in turn are substantially conditioned by the share of national resources which can be devoted to the educational system as a whole.

What this paper is largely about is the attempt in Scotland to establish a rationale for the apportionment of teaching resources to and within the secondary school sector. The results of this attempt are incorporated in a set of proposals for a system of staffing complements applicable to individual secondary schools. The proposals, and the steps leading up to them, are described in the report "Secondary School Staffing" and the accompanying circular[1] published in April 1973 as a basis for consultation. The proposals are also part of the Government's policy, as set out in the White Paper "Education: A Statement of Policy", issued in December 1972, on the resources to be made available for education in Scotland in the remainder of the present decade.[2] This paper should be read in conjunction with these documents.

The White Paper, in setting out a national teacher supply target for secondary schools consistent with the Staffing Report proposals, carried the implication that the Government would endeavour to ensure that sufficient resources of money and teachers would be available to meet, but not substantially exceed, the proposed standards.

In education, as in other social services, there can be no absolute standards and little in the way of a measurable output of performance. Standards tend to evolve out of a general consensus of what is needed balanced against what can be afforded. In both of these aspects the Government cannot remain long out of step with public opinion but equally it is expected that the Government, representing general rather than sectional interests, ought to take a lead with a coherent and rational policy.

The major problem in setting staffing standards for schools is to find a method of relating educational aims and developments to the numbers of teachers needed, having regard to the wide variety of types and circumstances of the schools. Traditionally in Scotland the only method of control has been the prescription of maximum class sizes, but this is no longer considered to be the most suitable measure for either primary or secondary schools. Thus from August 1972 the concept of prescribed maximum class sizes in primary schools was replaced by a system of staff complements related to the total roll of the school and incorporating provision for the various non-teaching duties of the staff.[3] This new method of prescribing complements gives the headteacher discretion to depart from the traditional forms of class teaching if he wishes. Nevertheless the method can be readily related to given class sizes. The complements which education authorities are asked to achieve in primary schools by 1975–76 are in fact based on the consideration that in a school organised on traditional lines the average class size should not exceed 30 pupils. This is clearly an easily recognisable standard for the public to grasp.

The pilot study carried out by S.E.D. in 1967–68 demonstrates how much more complex are the factors which affect the staffing needs of secondary schools and how difficult it is to relate intuitively such measures as maximum class size or pupil teacher ratio to the real needs of the schools.[4] Nevertheless the study led to the conclusion that the wide disparities in staffing standards which existed between schools could not be justified on any observable objective criteria. Thus with the agreement and co-operation of the education authorities and the teachers' associations, S.E.D. embarked on a more comprehensive investigation into the organisation and staffing of Scottish secondary schools with the objective of developing as fair as possible a method of assessing staffing requirements. The investigation took two forms:

(i) A detailed survey of the organisation and staffing of all Scottish education authority and grant-aided secondary schools at January 1970; and
(ii) Theoretical studies of the organisation and staffing of secondary schools with the aid of computer-based modelling techniques.

The results of the 1970 survey were published in two volumes of statistics and a commentary.[5] The survey provided a factual basis for the theoretical studies which led to the publication of the report "Secondary School Staffing". These will be discussed in more detail below. First, however, it is necessary to put the proposals in the report into the context of the overall teacher supply-demand system in Scotland.

Establishing staffing standards for individual schools is only part of the problem of assessing total teacher demand. This requires, in addition, the measurement and prediction of the numbers of pupils to be taught, and the conversion of individual school standards to a national pupil-teacher ratio. Accurate prediction of demand is in turn a prerequisite of an effective policy to secure an adequate supply of teachers. Predicting trends in teacher supply involves many difficulties and uncertainties. The future stock of teachers is determined not only by the numbers recruited each year but also by the numbers who leave teaching. Predicting trends in recruitment involves making assumptions about proportions of school leavers who are likely to go on to various branches of higher education, and of these how many are likely to want to enter teaching. Account has also to be taken of those who will come into teaching after a period in other employment. Trends in wastage are notoriously difficult to predict. Wastage can take many forms—teachers who qualify but do not enter teaching, young women who leave teaching to bring up a family, and age retirements are the main but not the only causes of wastage. Partly off-setting wastage are "re-entrants"—mainly qualified married women who, having brought up a family, want to return to full-time or part-time teaching.

Several factors complicate the task of ensuring an adequate supply of teachers. First, teachers are not a homogeneous inter-changeable population. The teaching force is made up, in reality, of a variety of different categories of teacher, each of which has its own particular pattern of demand, recruitment and wastage, and must therefore to a large extent be considered separately. In Scotland specialisation in the teaching force is taken further than in most other countries. Although the qualification to teach in a secondary school is a general one, in fact, all teachers employed in secondary

schools hold a qualification to teach a particular subject or subjects obtained after a specialised course of training with specific degree-subject or other entrance qualifications. It is true that many teachers are qualified to teach more than one subject but narrower specialisation seems likely to increase as the proportion of honours to ordinary graduates entering teaching increases. Within the general school system, moreover, Roman Catholic schools form a largely separate sector,[6] although Roman Catholic teachers do teach in non-R.C. schools and vice versa. Thus, because of the limited inter-changeability of teachers in Scotland, shortages in one branch of the teaching force cannot easily be made up by surpluses in another.

Another important feature of the teacher supply-demand system is the time-lag between demand and supply. The slice of the general population which produces pupils and creates a demand for teachers is a different slice from that which provides the teachers; consequently fluctuations in the birth rate may produce a tendency for teacher demand and supply to be out of phase. As it takes up to 5 years to train a teacher, supply is not readily responsive to changes in demand. There is thus a tendency for the system to oscillate between under- and over-supply through over-correction, unless there is careful prediction and planning. To take steps to remedy shortages or surpluses only when they actually occur is likely to be too late. Since the Second World War, demand for teachers has increased fairly steadily because of a growing pupil population, and despite measures to increase recruitment, supply has only in the last year or two begun to catch up on demand. A new situation is however developing, with a falling-off in the rate of growth in pupil numbers leading to an actual decline. This trend is already affecting the primary schools and will begin to affect the secondary schools in a year or two, although not before the traumatic experience of the present session, 1973–74, when the much larger increase in pupils resulting from the raising of the school leaving age has produced serious although, we trust, temporary difficulties in many schools.

Many factors bring about changes in the relative demand for teachers of different subjects including changes in the distribution of pupils over the various age ranges, the subjects they are offered, the balance of the curriculum and the accepted size of teaching groups. Because of the specialised nature of teacher qualifications, supply cannot quickly be related to changes in relevant demand.

Geographical considerations are also important. It was the existence of substantial disparities in the staffing of schools in different parts of the country which provided much of the impetus for the investigations made by S.E.D. into secondary school staffing. The time-lag between demand and supply, coupled with a tendency for education authorities to lay claim to their own home-produced teachers, creates a situation where, other things being equal, areas of population growth find it difficult to increase their teaching staff to keep up with rising demand. The distribution of Roman Catholic schools is another vital factor in geographical disparities, because of the relatively greater shortage of Roman Catholic teachers. Where a variety of adverse factors coincide, as in certain types of Roman Catholic schools in the west of Scotland, shortages can continue to be serious even when the general supply of teachers is improving.

In Scotland all teachers in primary and secondary schools must hold an appropriate qualification and be registered with the General Teaching Council for Scotland.[7] In effect, this means that teaching in Scottish schools is restricted to fully qualified and trained teachers. It is no longer possible to make up casual shortages by employing unqualified teachers.

It will be evident from this brief discussion that a great many complications and uncertainties attend any attempt to predict the national demand for teachers or to predict trends in teacher supply. The penalties of wrong prediction, producing either over- or under-supply of teachers, can obviously be extremely serious. It may be asked whether it would not be better to leave teacher demand and supply to normal market forces.

The question is a pertinent one, and the answer must be to some extent a matter of opinion. It is the view of S.E.D. that the Government's concern with the management of national resources, as set out for example in the 1972 White Paper, requires a national planning effort to control and influence the teacher demand-supply system in Scotland in order to achieve the stated aims in the interests of all concerned. Left to its own devices, it is probable that the system would produce an oscillation between over- and under-supply which would be in no-one's interest. Without reasonably well defined staffing standards, and a capacity to influence the teacher demand-supply system, it will not be possible to achieve adequate and equal educational opportunities for all pupils. The effort made by S.E.D. to solve the undeniably formidable problems will now be considered.

How the problem is being tackled

The key to solving the problem of assessing needs and of ensuring an adequate supply of teachers lies in an understanding of the elements and inter-actions in the teacher demand-supply system including not least the circumstances and aspirations of the schools themselves. To achieve such an understanding, to the point where reliable predictions can be made, S.E.D. have adopted what has come to be called a "systems approach". This involves creating conceptual and quantitative models of the system of teacher supply and demand, testing the models with real or hypothetical data, and observing the effects on demand or supply, or both.

Mention has been made of the complications and uncertainties in the teacher demand-supply system, and indeed what has been said is very much a simplified picture. There are, however, some characteristics of the demand-supply system in Scotland which are favourable to the understanding and control of the system. One is that the system is largely closed, with sufficient inherent stability for trends to be discerned and predicted. This situation could change in the future, but at present Scottish teachers are almost entirely produced in Scotland to meet a Scottish demand: there is relatively little movement over the border and such movement as takes place at present can be accommodated without much difficulty. Teaching moreover is a career profession, and the stock of teachers does not change arbitrarily or at short notice. Perhaps the most advantageous feature, however, is that Scotland is a small tightly-knit community: communications between S.E.D. and other parts of the system are good, and the total amount of information needed to understand and influence the system is not too great to be dealt with economically, at least with modern methods of storing and processing data.

Although S.E.D. have adopted a systems approach to the problems of teacher demand and supply, and have developed a number of useful models, it must be stressed that our ability to predict and influence the future behaviour of the system is far from complete. There are many aspects of the system which are subject to considerable uncertainties: for example, the effect of alternative job prospects on teacher recruitment and wastage. We are conscious also of gaps and inadequacies in our system of collecting and processing information and have embarked on a radical overhaul of the whole information system on teacher supply and demand which will necessarily take some years before it can yield fully adequate trend data. It has also to be recognised that, even if our predictive capability were improved, our ability to influence the workings of the system would be far from complete; we do not employ the teachers, and many vital decisions affecting teacher supply are and will continue to be outwith our control. It is, however, desirable that we should constantly endeavour to improve our understanding of the system and our forecasting capability in order to

ensure so far as possible that action is taken by ourselves and others to keep the supply of teachers as near as possible in line with demand and, in particular, to prevent serious shortages from occurring.

—

The Secondary School Staffing Model

The models so far designed by S.E.D. cover various aspects of the teacher demand-supply system, but special mention will be made here of one of these, the Secondary School Staffing Model. This is of particular importance because it has been designed and used by S.E.D. to study the factors affecting staffing needs in secondary schools and to formulate the system of staffing standards set out in the Secondary School Staffing Report. It has also been used in the assessment of total secondary teacher demand on the basis of the proposed standards.

The Secondary School Staffing Model is fully described in the Secondary School Staffing Report, from which the following summary description is taken:

> "Briefly, the Secondary School Staffing Model is a sequence of mathematical operations which links together the various factors affecting the staffing of a secondary school and enables a list of staffing requirements as well as other relevant information to be produced. All the factors affecting staffing are treated as **input variables** which can be given any desired value. Thus the model can be used to simulate any conditions or organisational patterns likely to be found in a secondary school with a view to studying their effect on staffing. The contribution of the computer to this technique is that it enables the calculations to be repeated quickly and accurately for different sets of input variables, and the results compared, in a way which would not otherwise be practicable."

The input variables recognised by the model include the roll of the school at each yearly stage, the courses and subjects offered and the proportion of pupils taking these, the acceptable maximum size of teaching group for each subject, stage and level, period allowances, allowances for various non-teaching duties, and a "float" of teacher-equivalents, expressed as a percentage addition to the total teachers calculated by the model. The purpose of the "float" is to provide a measure of additional flexibility in the use of teachers, covering for example timetabling difficulties and casual absences. It could also be used by an individual headteacher to make more generous provision in any particular aspect of his school's organisation which he considers requires it. As the percentage "float" is a variable, it can also be used by the modeller to move standards up or down with relatively minor limits while keeping the other variables constant. The output of the model consists of estimates of teachers required for each subject and stage, together with such other information as average class sizes, average pupil contacts per teacher, and overall pupil-teacher ratio.

Provision for remedial education is covered by the model in two ways, both or either of which may be used: first, in the form of separate classes for the least able pupils, secondly by a special allowance of teacher-equivalents to cover the remedial education of pupils withdrawn from normal classes. In either case the item is treated as a variable so that different levels of provision can be modelled.

It is important to stress that the model itself is merely a set of logical steps which produce a teacher requirement according to the values assumed for the input variables. It is therefore entirely neutral and does not itself incorporate values. More than 400 sets of variables representing a wide variety of types and circumstances of schools and different organisational patterns have so far been tested, using the model. Among the particular aspects studied were the following:

(1) The effect of the size of roll on pupil-teacher ratio, other assumptions being held constant.

The characteristic curve shown in Appendix 1 to this paper was obtained, demonstrating that economy in staffing increases with the size of school. Beyond a given point, however, the increments of roll produce a diminishing return in terms of increase in pupil-teacher ratio. The position and slope of the curve varies according to the particular assumptions made about internal organisation and other factors, and it is not possible therefore to generalise on what is an "economic" size of school. The use of the model however enables given assumptions to be quickly assessed in terms of the effect of size on P.T.R. and so, amongst other things, contributes to a more informed consideration of the point at which the staffing economy of large schools is outweighed by other possible disadvantages.

(2) The effect of type of school on pupil-teacher ratio, other assumptions being held constant.

Again the results are dependent on the assumptions made, for instance about courses offered and class sizes. For a given set of assumptions a comprehensive organisation was found to be less economical than a combination of selective forms for the same number of pupils. In practice, however, comprehensive schools serving a given catchment area will be larger than selective schools: for a town of around 25,000–30,000 inhabitants, the modelling of different arrangements of schools of different types suggested that an arrangement of two comprehensive schools each of about 1,425 pupils would be as economical as any other likely arrangement.

(3) The effect on staffing requirements of different assumptions of maximum class size.

The ability to model different class sizes, keeping other variables constant, is extremely valuable, not only in showing the effect on total staffing requirements and costs but also in revealing differential effects, for example on the numbers of teachers needed for different stages or subjects. A constant reduction in class size for all subjects would, for example, alter the relative demand for teachers of different subjects.

(4) The effect of differences in curricular organisation.

The term "curricular organisation" is used here to cover such matters as the courses and subjects offered, the proportion of pupils allocated to examination and non-examination subjects, and the period allowances for different subjects. This is possibly the most useful as well as the most difficult feature to model, as in practice it is unlikely that differences will affect only one variable at a time. The method adopted was, broadly, to model a "consensus" view of a reasonable organisation for a comprehensive school of 1,140 pupils, and then to observe the difference in staffing requirements for a variety of alternative forms of organisation extending from highly streamed limited-choice systems to systems embodying setting across the whole of a year group. In preparing the curricular assumptions advice sought from a group of experienced headteachers was used to supplement evidence from the 1970 survey. Among the valuable insights provided by the model was the light thrown upon the effect of different option arrangements on staffing needs.

(5) The effect of differences in option "take-up".

The proportion of pupils who decide to follow particular courses and subjects varies from one school to another and is affected by the particular arrangement of subjects in option columns. The model was used to simulate different option arrangements and pupil take-up and study their effect on total and on subject teacher requirements.

From the application of the model to a large number of different circumstances and assumptions, it was concluded that the most equitable method of setting staffing standards for individual schools was by a system of staffing complements incorporating a "basic complement" related to the roll of the school at the various yearly stages, supplemented by a number of allowances in teacher-equivalents linked to particular characteristics of the school. The basic

complement incorporates a pro rata allowance of non-teaching time for each teacher and for administrative duties within the subject department. A separate "E.D.A. (Extra-Departmental Administration) allowance" is added for administrative duties outside the subject department, including those of the head and deputy headteachers and of guidance staff. Other allowances comprise a "remedial education allowance", the "float" already mentioned, and an allowance to cover teachers released for in-service training. The last two allowances are related to the basic complement plus E.D.A. allowance and are equivalent respectively to 5% and 4% of the total complement. A further allowance, to provide a lighter load for teachers in their first year of probation, is included but is not intended to come into operation until 1976. The differing staffing needs of schools with selective and non-selective forms of organisation are recognised by having three separate sets of complements covering respectively non-selective schools, selective schools with certificate courses only and selective schools with non-certificate courses only: the essential differences lie in the basic complements for years SIII and SIV and in the provision made for remedial education.

The proposed set of complements for non-selective schools is shown for illustration in Appendix 2.

The assumptions on which the values of the basic complements were calculated are clearly set out in the Secondary Schools Staffing Report, which also gives an indication of the kind of variations which would be possible within the same total complement. The assumptions incorporate a normal maximum class size of 30 for classroom subjects in SI–SIV, 25 for classroom subjects in SV and SVI, and 20 for all practical classes. Actual class sizes will depend on the roll of the school and on its internal organisation. The average size of class possible in a comprehensive school of about 1,150 pupils within the basic complement is around 22 pupils. In addition, the 5% float could be used partly if desired to reduce class sizes selectively—for example, those of non-certificate pupils in SIII and SIV; the Report shows how this might be done. The float and the various other allowances provide for improvements on present general standards—for example in the provision made for remedial education and for in-service training.

The system of staff complements embodies a high degree of flexibility. First, by having different complements for the three stages SI+SII, SIII+SIV and SV+SVI, and for selective and non-selective forms of organisation, the complements can be automatically adjusted to the type of school and the distribution of pupils within the school. A school with a relatively large number of pupils in the upper stages will, for example, have a larger complement. The complement is also automatically adjustable for schools in a transitional phase, for example, those changing from a selective to a comprehensive organisation, and for schools with an atypical distribution of roll. The remedial allowance and the in-service training allowances are intended to be treated as norms which may be increased or decreased according to the need for remedial education in the school and the actual incidence of in-service training. An essential feature of the system is that, although total staff complements are built up by a system of basic complements and allowances, and are clearly related to identified needs within the school, the headteacher is left entirely free to deploy the teaching staff in any way he wishes within the total complement, thus maintaining his traditional freedom in regard to internal organisation and curriculum. Indeed, it is proposed to remove the existing statutory constraint on maximum class sizes, so that, although the total complement will enable class sizes not to exceed the limits already mentioned, the headteacher will be free to arrange larger groups, e.g. for lectures, as required.

The system of staff complements contains no prescription or guidance on how total complement should be distributed amongst the various subjects. This was deliberate. The evidence of the 1970 Staffing Survey and of the extensive use of the Staffing Model showed that the relative need for teachers of different subjects within an overall complement depends on a variety of factors which may be classed in 3 groups: external or given, e.g. the distribution of the roll; curricular—the courses and subject choices offered, period allowances and so on; and the actual choices made by the pupils. The interplay of these factors produces quite different subject-teacher requirements, and it would, in our view, have been quite wrong to lay down standards for the number of teachers required for each subject. It will, of course, be necessary for S.E.D. to be able to assess and predict the national **demand** for teachers of specific subjects. The adoption of a uniform system of total staff complements will make it possible to monitor, by regular returns from schools, changes in relative demand for teachers of different subjects.

Finally it should be mentioned that it is recommended that the standards should not be mandatory. It is recognised that, despite the very high inherent flexibility in the system of complements, exceptional circumstances may justify departures from the standards in specific cases. It is also considered to be impracticable and unnecessary to lay down standards for very small schools—broadly those with under 200 secondary pupils. For these reasons it was decided that no powers should be sought to embody the standards in regulations.

The total available supply of secondary teachers in Scotland, and the disparities which exist between different parts of the country and between individual schools, make it impracticable to suppose that the standards can be brought into effect immediately. Consequently it has been recommended that all authorities should adopt them as a target to be achieved not later than 1977–78 in all schools. In the meantime it is recommended that authorities should introduce the **system** of staff complements from session 1974–75, with the actual standards adjusted in accordance with available supply.

It should be stressed that these proposals for new staffing standards were put forward for consideration and comment by education authorities and other interests. The process of consultation is well under way and it is hoped that final proposals will be issued early next year. Whatever the ultimate outcome, we trust that the proposed system of staff complements is at least thought to be a worthwhile attempt to rationalise the method of assessing staffing needs for secondary schools in Scotland. But much remains to be done to refine the technique and to provide for further developments.

From the point of view of education authorities and schools we believe that the publication of the Staffing Report and of the results of the Secondary Schools Staffing Survey have given a fresh impetus to an already growing interest in Scotland in efficient organisation and use of teaching resources, as illustrated for example by the introduction in 1972 of a national centre for school administration, embodying an advisory service on secondary school timetabling, in Moray House College of Education. The emphasis on managerial problems in schools is a true sign of the times. It reflects the incredible complexity and difficulty of organising a large secondary school efficiently. It also reflects the wide discretion and responsibility placed upon headteachers and senior staff to ensure that schools are efficiently run. It reflects above all the growing recognition that teachers are a valuable resource which must be carefully husbanded. Nothing in what is said in this paper detracts in any way from the prime purpose and duty of schools, which is to be concerned with the education of the pupils. On the contrary, it is only by efficient planning and use of teaching resources that the educational and social roles of the schools can be efficiently maintained and progressively improved.

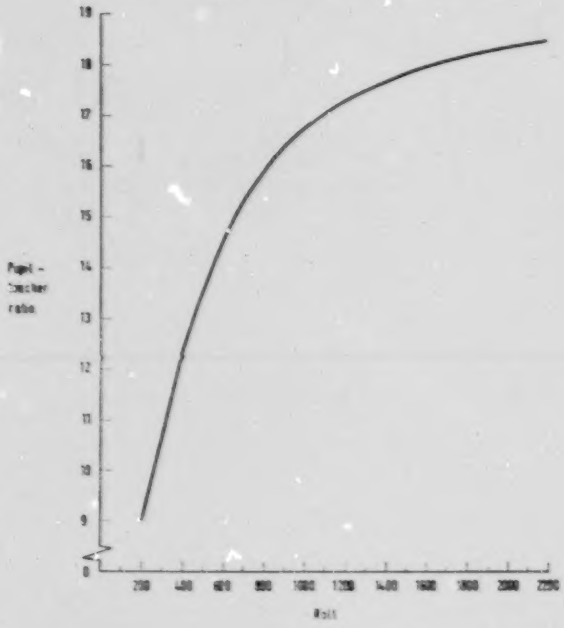
1. *Secondary School Staffing: a report on secondary school organisation and staffing in Scotland, with proposals for new staffing standards*, H.M.S.O. 1973. Price 85p (by post 93½p).

Scottish Education Department Circular No. 865, *Secondary School Staffing Report*, March 1973.

2. *Education in Scotland: A Statement of Policy*, Cmnd. 5175, H.M.S.O. 1972. Price 13½p (by post 16½p).
3. Schools (Scotland) Code (Amendment No. 1) Regulations 1972. S.I. No. 776, H.M.S.O. Price 5p (by post 8p).
   Scottish Education Department Circular No. 819, *The Staffing of Primary Schools*, March 1972.
4. Scottish Education Department Memorandum, *Staffing of Secondary Schools in Scotland*, H.M.S.O. 1969. Price 22½p (by post 28p).
5. *Secondary Schools Staffing Survey 1970, Volumes 1–3*, H.M.S.O. 1972. Prices: Volume 1—£1·90 (by post £2·08½); Volume 2—£1·90 (by post £2·08½); Volume 3—90p (by post 98½p).
6. Roman Catholic schools are run by education authorities in the same way as non-denominational schools. Teachers in Roman Catholic schools are appointed by the education authority but the Catholic Church authorities have a statutory right to satisfy themselves as to the religious faith and character of teachers appointed.

APPENDIX 1

FIGURE 8.1
Relationship between roll of school and pupil-teacher ratio: comprehensive schools



APPENDIX 2

TABLE 11.2
Suggested staff complements
(a) NON-SELECTIVE SCHOOLS

A. Basic complement				Additions to basic complement			
No of pupils in stage				B. Extra departmental allowances (including head teacher)		D. Remedial allowance*	
I (S1+S2)	II (S3+S4)	III (S5+S6)	Complement for stage				
(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)
90– 114		25– 54	6	Total roll	Teachers	Roll of Stage I (S1+S2)	Teachers
115– 139		55– 79	7				
135– 159		80–119	8	100– 299	2·0	100– 154	0·5
160– 179	90– 114	120–149	9	300– 599	2·5	155– 254	1·0
180– 204	115– 139	150–174	10	600– 899	3·25	255– 354	1·5
205– 224	140– 164	175–199	11	900–1,199	4·25	355– 454	2·0
225– 249	165– 189	200–219	12	1,200–1,499	5·0	455– 554	2·5
250– 269	190– 209	220–234	13	1,500–1,799	5·75	555– 654	3·0
270– 294	210– 219	235–254	14	1,800–2,099	6·25	655– 754	3·5
295– 314	220– 239	255–289	15	2,100–	7·0	755– 854	4·0
315– 339	240– 259	270–289	16			855– 954	4·5
340– 359	260– 284	290–304	17			955–1,054	5·0
360– 384	285– 304	305–324	18				
385– 404	305– 329	325–339	19	C. Float		E. In-service training†	
405– 429	330– 349	340–359	20	(7)	(8)	(11)	(12)
430– 449	350– 374	360–374	21	Basic complement +EDA	Teachers	Basic complement +EDA	Teachers
450– 474	375– 394	375–394	22				
475– 494	395– 419	395–409	23	8– 12	0·5	6– 17	0·5
495– 519	420– 439	410–429	24	13– 17	0·75	18– 30	1·0
520– 539	440– 464	430–444	25	18– 22	1·0	31– 43	1·5
540– 564	465– 484	445–464	26	23– 27	1·25	44– 59	2·0
565– 584	485– 509	465–479	27	28– 32	1·5	60– 69	2·5
585– 609	510– 529	480–499	28	33– 37	1·75	70– 80	3·0
610– 629	530– 554	500–514	29	38– 42	2·0	81– 93	3·5
630– 654	555– 574	515–534	30	43– 47	2·25	94–105	4·0
655– 674	575– 594	535–549	31	48– 52	2·5	106–118	4·5
675– 699	595– 614	550–569	32	53– 57	2·75	119–130	5·0
700– 719	615– 639	570–584	33	58– 62	3·0		
720– 744	640– 659	585–604	34	63– 67	3·25	F. Probationers‡	
745– 769	660– 684	605–619	35	68– 72	3·5	Add 0·33 teacher for each 1st year probationer	
770– 794	685– 704		36	73– 77	3·75		
795– 814	705– 729		37	78– 82	4·0		
815– 838	730– 749		38	83– 87	4·25		
840– 859	750– 774		39	88– 92	4·5		
860– 884	775– 794		40	93– 99	4·75		
885– 904	795– 819		41	99–102	5·0		
905– 929	820– 844		42	103–107	5·25		
930– 949	845– 869		43	108–112	5·5		
950– 969	870– 894		44	113–117	5·75		
970– 989	895– 919		45	118–122	6·0		
990–1,009	920– 944		46				
1,010–1,029	945– 969		47				
1,030–1,049	970– 994		48				
1,050–1,069	995–1,014		49				
1,070–1,089	1,015–1,039		50				

* This allowance should be regarded as an average and subject to variation according to the needs of the school.
† Full allowance. To be phased in accordance with build up of in-service training.
‡ From 1976–77.

Example: Comprehensive school of roll 1,000 distributed as follows: S1 222; S2 222; S3 232; S4 222; S5+S6 111

Probationer teachers on staff	1
Basic complement+EDA: 21+25+8+4·25	=58·25
Remedial	2·0
Float	3·0
In-service (full allowance)	2·5
Probationer	2·3
Total complement	68
PTR	14·7

Response: A. G. Robertson

Headmasters are always prepared to state the aims of their schools but find it much more difficult to explain how these aims are achieved. I think all would agree that part of the answer lies in having the best possible quantity and quality of staff in the school, and I am, therefore, glad to have this opportunity to respond to Mr McGarrity's paper which is based on the Scottish Secondary School Staffing Report (1973).

First of all I must commend several features of the Report. The data included are based on an analysis of a national questionnaire to schools. The resulting "staffing model" is used to study the effect of changing a variety of school variables. And the report contains a mass of relevant and interesting information concerning teacher supply and demand, school types and rolls, class sizes, subject requirements, pupil-teacher ratios, and implications of different organisations and curricula. All of these are worthy of study.

The Report makes certain specific recommendations about staff complements, based on the staffing model. These complements are related to requirements at various stages of the school, extra-departmental allowances, in-service training, absent teachers and remedial teachers. Thus it appears that a fairly sophisticated instrument of measurement and prediction has been developed. My main complaint here would be that several of the allowances are inadequate, and should be increased.

As an illustration, the model makes the following provision for a comprehensive school of 1,475 pupils: 24 teachers for S I and II (500 pupils), 30 teachers for S III and IV (600 pupils), 22 teachers for S V and VI (375 pupils), 5 extra-departmental teachers, 3 remedial teachers, 3 for "float" and 3 for "in-service", a total of 90 members of staff, giving a pupil-teacher ratio of 16:4:1.

Two major assumptions have been made in the Report, which weaken the foundations, in my view. One is the estimate of teacher supply and the other is the percentage taken for teacher wastage. Neither estimate is reliable, and errors can affect the overall supply-demand situation quite drastically.

Also, there are certain unyielding factors that this kind of model cannot take into account. One is the relative imbalance of staff from region to region, and the other is the shortage by subject. In ten Renfrewshire schools, for example, the total shortage is 100 teachers, and this is largely a geographical shortage. In this County, nearly all subjects are short of teachers, particularly art, technical, business studies and modern languages, and to a lesser extent mathematics, science and English. Another County advertised nationally for over 50 teachers recently. The shortage, in places at least, is much more severe than national pronouncements indicate.

As the Report states, the whole supply-demand mechanism is very complex and tends to oscillate if left to operate naturally. Whether the use of the staffing model will dampen the oscillation about a satisfactory mean remains to be seen.

Another factor that may obliterate the model's sophistication is that of comparative salaries and shortages in other occupations. One constantly meets students who have turned away from the teaching profession because of more attractive salaries and conditions elsewhere.

In my experience, teaching has much to offer. A satisfying and stimulating life if conditions are good; new methods,

subject content and facilities; a reasonable element of leisure time, albeit relatively less than formerly, and associated opportunities for developing personal and community interests; a sense of security which is more important, perhaps, in these troubled times.

Against these one can cite other factors. An atrocious struggle in bad conditions, with antagonistic pupils and antipathetic parents and public; an increasing political pressure on the educational system such as R.S.L.A., with its consequent reluctant pupils, over-large classes, and staff and accommodation shortage; the enforced philosophy of common courses in mixed ability classes for one or even two years at the beginning of the secondary school stage; the generally bad publicity given to the teaching profession by the media; finally salaries, an over-riding influence in the supply of teachers which neither the country nor its politicians have understood or accepted.

All of these factors, for and against, and many others, influence the long-term staffing of schools. The Staffing Report and Model provide an incentive to study the problems and to seek some perhaps too theoretical answers. But I am certain that the only real and lasting solution will be provided by a substantial improvement in the salaries and status of the teaching profession.

Response: W. Murray White

1. Pressure of time forces me to condense my response to Mr McGarrity's admirable paper to an extent which may well prevent me from doing justice to the many major issues which it raises. In an attempt to minimise this injustice I propose to divide my response into 3 parts. The first will draw attention to the similarities between the Scottish situation and that obtaining elsewhere in the United Kingdom. The second will refer to certain markedly distinctive features and my third phase will attempt to look forward to both the potential and the hazards of a sophisticated analytical approach.

2. First then, the common features, or those that were common until the new Scottish approach was developed. While overall financial constraints of various kinds have been exercised by central government, decisions about the input of teaching resources have been largely delegated to local authorities and priorities in the deployment of resources so provided have been left to individual schools. In spite of our quota system, aimed at limiting geographical maldistribution we find that local authority input control, normally exercised through imposed staff-pupil ratios reveals, even more than in Scotland, variations in input far in excess of any measurable differences in needs. The outcome is to present schools with irrationally varying complements of staff and rely on them to bend their assessments of need to conform to these resource constraints. The second common constraint, operating in the opposite direction, is the concept of maximum class size. This somewhat crude instrument, operated perhaps somewhat more rigorously in Scotland than elsewhere, was designed to act as a remote lever ensuring that overall provision in any school should not fall below an extremely modest minimum and to place limits on the extent to which large classes in one part of a school could be used to subsidise much uneconomic provision elsewhere. A third shared feature is the growth of "middle-management" posts and an increase in the non-teaching time allocated to the functions they are expected to perform. This development reflects both an increase in the size and complexity of schools, requiring structural arrangements for matters which in smaller schools might have been dealt with informally and a marked growth in the responsibility of schools to supportive functions mainly in the areas of personal and vocational guidance.

3. The differences between England and Scotland to which I wish to draw attention include:—

(i) England is larger, less compact, consensus is less easily obtained and there may be less response to central influence.

(ii) England has 2 examinations, at present, at 16, one of which, C.S.E., has the obligation to examine whatever schools choose to teach. This leads to a more diffuse pattern of options, with a greater tendency for the proliferation of small groups. A looser pattern arises from the less clear demarcation between examination and non-examination courses.

(iii) Indeed, the whole system is less cohesive with individual schools, all considered secondary, covering different age-ranges. The range of size is also somewhat greater.

(iv) While both countries share the simple definition of "qualified teacher" specialists in England are probably less clearly defined; ambition, pressure and experience combine to produce teachers who have acquired specialisms additional to or different from the discipline of their original training.

(v) Diversity extends to the time-table. The term "teacher period" has no longer any general meaning and may be a unit of time varying in different schools from 35 minutes to over an hour, as well as being part of time-table cycles of any length from 5 to 10 days not excluding such esoteric examples as a 7-day time-table round a fixed Wednesday.

4. I have briefly outlined similarities and differences in the factual background to the two situations. The differences, especially the much greater range of organisational variations, together with the difficulty of defining the specialisms of teachers alongside considerable growth of new subjects and inter-disciplinary developments enjoying a variety of umbrella titles, would make an English exercise, parallel to the Scottish survey, almost impossible. On the other hand, the basic similarity of the problems has led to the increasing use of analytical approaches with aims consonant with those of the more massively detailed Scottish exercise. While there is nothing in the way of an English survey, some authorities and some schools are beginning to use mathematical tools to investigate the relationships between input and operational variables. Four outcomes from this development merit mention.

(i) Many authorities have introduced more sophisticated staffing formulae, using differential ratios for various age sectors, together with discretionary additions designed to meet special needs. This sophistication does not derive from a precision of analysis comparable with that in Scotland but could more properly be described, in racing parlance, as by hunch out of experience.

(ii) Unfortunately, the only concession to size, a variable whose importance is less recognised in England, is the occasional injection of an extra teacher to help small schools, defined by authorities as below some erratically arbitrary minimum enrolment.

(iii) There is awareness of the size problem, however, in a different context. In the past few years there has been a slight but steady improvement, nationally, in average teacher-pupil ratios and there is concern that this has not led to any proportionate reduction, either in average class size or in the number of over-size classes. The explanation is that the additional teachers provided as a result of improved ratios have been mainly used in boosting the amount of non-teaching time. For this, there are both positive and negative reasons. Positively, many schools have elected to increase their non-teaching time to enable the many

additional functions which they have sought or have had imposed on them to be more adequately carried out. Negatively, in some schools, there has been no alternative to increased non-teaching time since fully used accommodation provides no extra spaces in which the additional teachers could operate.

(iv) Failure to bring down the number of oversize classes arises from, among others, 2 main causes: (*a*) the conjunction of the concept of form-entry (in multiples of 30 pupils) and the remedial problem. Some, but by no means all, of our schools choose to isolate a remedial group for all or much of its curriculum. If the numbers in such a group are restricted to 20, as they commonly are, it follows that in a 6-form entry school, either the remaining classes will exceed 32 or the 6-f.e. school will have to operate, in part at least, on a 7-f.e. organisation; (*b*) the second cause is that the additional teachers have been fed into the upper parts of the schools enabling ever-widening choice to be organised in small groups, subsidised by oversize classes in the earlier years.

5. May I conclude by offering a number of isolated observations on the Scottish survey, its staffing models and its general approach.

(i) I welcome this development and I am somewhat envious of the amount of hard fact now available to decision-makers in Scotland and of the speed at which reaction is possible to changes in the input variables.

(ii) I am less sure about the operational variables. The concept of the float, designed to retain considerable freedom to the individual school while preventing unlimited cost escalation, is admirable, but I wonder whether external pressures may not force schools into using the float to preserve the *status quo* rather than fundamentally to re-examine their priorities. There are certainly schools in England which would find it hard to resist pressures to use any increased room for manœuvre to enlarge rather than to diminish present imbalances in the deployment of their resources.

(iii) Models cannot take care of everything, and the pressures to which I have referred are one of the incommensurables. Another constraint to which I have already referred, is that of accommodation. I may not have read the Scottish papers with sufficient thoroughness but I did feel that this particular constraint had been somewhat under-emphasised. I am not sure whether we are yet sufficiently aware of the circular nature of this problem. Existing curricular practice influences current provision of accommodation which in turn dictates or constrains the curriculum of the future.

(iv) There is a similar circularity between the curriculum and requirements of the various categories of teachers. We aim to recruit the numbers of specialists needed to meet present curricular objectives and, if we get them, the availability of their expertise then constrains the ways in which the curriculum can change. This is a problem which confronts schools anxious to change. They may have long-term objectives requiring a different balance of staffing and, theoretically, turnover should make such changes progressively possible. Unfortunately, the impact of turnover is unpredictable and there is an obligation on schools to sustain curricular programmes to which pupils are already committed. This produces a conflict of objectives. Long-term intention to change suggests replacement of one specialism by a different one but the ongoing commitment requires direct substitution.

(v) I am also concerned about the balance between delegation and accountability. I am sure that, in principle, we ought to preserve the freedom of schools to determine their own priorities. But ought there to be limits within which this freedom should work, not rigidly applied, but requiring reasons, susceptible to negotiation, if schools wish to move outside these limits? A particular example will make my point. There would be understandable opposition to any attempt to prescribe minimum teaching group sizes, and rare, very minute groups can undoubtedly be justified. The question is as to how far this can go, and the virtue of broad analyses of deployment is that they encourage the critical examination of the cumulative effect of changes, each of which could no doubt be defended in isolation.

(vi) Finally, I hope that these new developments will lead to a new scrutiny of contact time, in which emphasis will shift from concentration on the quantity of contact to its quality. Ought we, for example, to re-examine three particular questions?

(*a*) In our fourth and fifth years and I suspect also in Scotland, there is the anomalous situation that compulsory subjects are taught in the largest groups, using the minimum of resources while more peripheral activities may be organised for very small groups consuming resources at many times the rate of the compulsory sector.

(*b*) Should time allocations at all levels be more related to group size? Have we evidence, for example, that the outcome of (say) 3 periods of teacher contact with a group of 20 would be less beneficial than a larger number of periods spent in much bigger groups?

(*c*) Have we got the right balance between the common core of the curriculum and the optional elements and if we continue to allow a vast range of choice at 14 are we satisfied that syllabuses and schemes of work are planned accordingly? In England, I fear that most subjects are conceived entirely in terms of those who will continue and no questions are asked about the surrender value of those subjects which options systems permit or compel pupils to give up at an intermediate stage.

7. These last points have little direct connection with staffing models. I have mentioned them because I am slightly anxious that we could become over preoccupied with how we organise at the expense of concern with what we are organising for. I am sure that models and analyses can illuminate the professional value judgements that have to be made. I do not think they can make these judgments for us.

School and Further Education: Joint use of Resources

Derek Birley

Director, Ulster College, The Northern Ireland Polytechnic

I have been racked by doubt ever since I undertook to write this paper. Not so much because of lack of knowledge of the subject. I presume it is not expected that I, unconnected professionally with either end of the problem, can offer more than an amateurish and superficial comment or two. Nor did my doubts arise because, as "Education" not too delicately put it in their notice of the conference, two very knowledgeable people "will be sharpening their wits on Mr Birley". I am glad to accept the humble but useful role of strop for their razors.

No, my real anxieties began when I sought help from Deryck Mumford, Principal of the Cambridgeshire College of Arts & Technology, who has long advocated amalgamating school sixth forms and further education colleges. His stated objective "to provide a better range of opportunities with given resources" appeared admirable, but his solution seemed by implication to be excluded from my terms of reference. He went on, "I have not given consideration to joint use of resources by schools and Further Education colleges because long experience has suggested to me that to get any two educational institutions to co-operate about anything is virtually impossible."

Even if this is only partly true it provides, as they say, food for thought. It has led me to conclude that we should consider first of all the grounds on which we justify having two separate sets of institutions each involved in the education of the same age group. And I am afraid that this in turn has led me to some rather sweeping generalisations in the next section. It would be presumptuous to call them a statement of principles. They are no more than the first thoughts I tentatively bring to the matter, stripped of proper qualification in the interests of space and perhaps ever-so slightly exaggerated here and there in the interests of stirring controversy.

History and all that

I wonder if you share my growing fear that, as a country, we may have too much history for our own good? Nation after nation, since the last war, seems to have been able to break away from or build on its past, economically and politically, while we contemplate our ancestors' navels. We appear to seek confirmation there that the world owes us a living, in spite of mounting evidence from more credible sources that it acknowledges no such debt. Nor do we now seem to have any great ethical, cultural or political contribution to make. We are satisfied with what we consider to have been our virtues in the past—tolerance, good sense, give and take. As a result we depend too much on compromise and not enough on declared and worked out principles.

The close inter-action of educational and social factors in our way of life makes it inevitable that what applies to society in general applies to the education system in particular. It is a chicken and egg situation, and no-one can be absolutely certain what is influencing what. Education for us is *part-determinant, part-product* of social factors, and our system is such a precarious balance of interests—local versus national, individual versus institutional, professional versus lay, for instance—that it has become a kind of compromise machine. It is also one of such complexity that we have to devote inordinate effort to secondary things, like machinery and organisation.

Hence, perhaps, the inclination to regard as a matter for compromise through manipulating resources the question now at issue. Should we not first look at the cause of the problem? Certain institutions called schools have grown up in one part of our system; certain others called colleges of further education have grown up in another. It is not our custom to fret about such haphazard growth. We are inclined to dignify with the name of tradition the disreputable habits that have led us where we are. Certainly we can say that the problem stems from two separate traditions that have influenced the creation of schools and of colleges and assume that this means they must both continue unchanged. But this does not alter the fact that we have no national policy about the right educational environment for 15 to 18 year olds, and that we have two rival groups competing for the favours of these young people.

The academic ethos of our maintained secondary schools has emerged rather than been created. I say nothing of the legacy of a nonsensical tripartite division once proudly proclaimed to reflect three categories of young human being, and the shaky foundations of past decisions about ages of transfer, except that they illustrate how our education system has had the power of self-fulfilling prophecy built into it from the beginning. My immediate concern is the mixed heritage of public school and public elementary school attitudes with which history has endowed the secondary schools now run by local education authorities.

The result, with a standard model that provides education simultaneously to children of 11 and young adults of 18 or 19, seems to me open to criticism. And the doubts are not removed—in some ways they are increased—by offering the seven-year stretch to children of all levels of ability. What impels us to restrict curricula and aspirations to preserve an elongated age-range in schools for 11–18 year olds? At the top of these schools there is the sixth form, flowering away in the public school tradition. At the other end there has been a gratuitous addition to the conventional age span. And in the middle we may have all or some of every variety of subsequent educational thought or administratively convenient notion.

One of the varieties is the product of a different tradition. A great deal of nonsense has been talked about the vocational element in education. The term is often used pejoratively or at least patronisingly when applied to the education of the bulk of the population but we tend not to apply it in this way to training for, say, the law. In fact it exemplifies one of our sillier snobberies. But what I refer to here is the provision of vocational education for ordinary folk by the night schools and their successors.

The inheritors of this tradition are the colleges of further education. Today they are widely regarded with suspicion when they show signs of extending their influence—vulgarly peddling their wares, likely to turn decent school children into nameless horrors with specious promises of adult atmosphere. Thus W. R. Elliott, Senior Chief Inspector of

the D.E.S., in a speech in 1970 poked mild fun at those who claim "that something seductively labelled Adult Atmosphere is what the young desire and need—and that this commodity is the preserve, apparently for ever, of certain types of institution; that a break with one's past and a leap forward into the unknown is a tremendous stimulus."

One should not perhaps make too much of one small comment in a lengthy, wide-ranging speech (and one that is full of wit and charm) and no-one pretends that the further education sector is without blemish. Just at this point though it seems a pity that Elliott's criticism was not directed at the present organisation instead of at the desire to offer young adults an appropriate environment (a desire shared by many schools, as he himself implies).

But then, we are all organisation men today. In education this is no more than an extension of another tradition. Our preoccupation with creating and running institutions too often leads us to put the claims of schools or colleges before those of the people they are intended to serve. We almost seem to assume at times that these places have a life of their own, that they are somehow the reality and the young people in them merely shadows.

Philosophy and all that

Our preoccupation in all branches of the service has been with institutions, not ideas. Of course it can be argued, and used as a defence, that it is not our practice to set up institutions with specific, laid down rules, but rather to indicate the broad limits of their territories and leave it to the people in them to work out the details (like what they are trying to achieve). Which is another way of saying that we are not notably good at creating the philosophical basis of what we are providing before we launch into the provision. We can explain it, in the context of our tradition, as a reflection of education's ambivalent stance in relation to society: politicians, administrators and teachers while helping to shape the public mind must be responsive to its demands.

The British people, struggling for a real voice in the government of their country, have not yet been able to articulate their needs clearly in relation to the education of their children at the secondary stage. Some parents are too feckless or too inhibited to utter on the subject—and it is to our shame, either way. For the rest, their demands generally appear to centre on the desire for their children to get paper qualifications that will help them earn a good living.

It is fashionable to criticise the narrowness of the vocational concept. But is not the fault in the narrowness of the way we conceive it and the unimaginative and insulting assumptions we make about the jobs we deem the majority of people suited to perform? The notion of living in the world of work could be and ought to be a richer and more influential one in the minds of educators (as indeed in the minds of industrialists and politicians).

Working in a polytechnic I have increasingly come to regard the sandwich principle as important, not only because of the pedagogical advantages of bringing together theory and practice, but because of a growing feeling of the psychological rightness of it. It seems to me that we do a grave disservice to many young people at a critical time in their lives, by offering them as the educational ideal an unrelieved diet of full-time formal education between the years of 14 to 21. And in this I include not only the less intellectually-endowed but many of those who now go through sixth forms and universities without failing an examination.

Educationally, socially and economically we seem to be suffering the consequences of neglecting these fundamentals. Our social and economic malaise is plain for everyone to see: the growing problem of leisure is another facet of the same neglect. Educational inadequacies are less easy to spot, but the signs are there. Admission to once-revered institutions is no longer every young person's dream. There is no point in having expensive and imposing schools and colleges if they have the same status as Samuel Butler's musical banks and the real currency is handled elsewhere.

The dilemma in which our secondary school teachers find themselves has been well described by David Hopkinson:

> "For the educationist the goal of his strategic designs must always be the promotion of personal development. He has, of course, to reconcile his views with those of the manpower planner, of industrialists and professional bodies. His strategy must be such that those who control admission to higher education are satisfied. His pupils want jobs or admission to another stage of education, and it is no contribution to their personal development if this is ignored."

Hopkinson's conclusion, "The factors that count are the inclinations of the young people themselves and the range of possibilities open to them" will be echoed by everyone in education, but it is hard to resist the conclusion that in practice we too often put institutional considerations first.

Take another part of the speech by W. R. Elliott:

> "This concept of viability has led to the growth of mushrooms, schools with an ominously explosive head, in Mexborough, for example, and Epsom. But a mixture of 11–16 and 11–18 schools in the same area is not popular; perhaps if one must lose one's 16+s it is better to lose them to a 16–18 institution than to lose out to a rival school with a mushroom top."

How do we react to that, I wonder? It is, let us agree, a shrewd and realistic observation. But do we have to assume that such considerations must come before the education of the nation's children? When later on he says, "That this competition between the advocates of schools and colleges is a real competition can be shown by the numbers of clients involved," Elliott is doing no more than stating a fact we must face. But it sounds like a description of a battle to sell soap flakes. And even the consoling image of private enterprise, with its implications of free choice stimulating those competing for custom, does not hold good. The young people are not free agents; there is no real choice for them.

Here we reach the core of the anxieties I expressed at the outset. How can we talk of sharing resources if this is in fact a contest? In what spirit do we seek sharing solutions? Is it that of compromise merely? If so are we justified in setting aside what is really a clash of vital principle because of the accidental existence of separate sets of buildings and types of institution?

Why not Junior Colleges?

I certainly have not felt justified in producing this paper without some reference however brief to the possibility of a rational re-planning of the educational provision for the older pupils.[1] The main objection to the notion appears to centre on the question of whether we are justified in setting aside traditions of proven worth for a leap in the dark. As to the traditions, I suggest that though they may have served some of us well, they have done badly by many, many others, and that in any event, the world and its young people have changed dramatically since sixth forms began to flower.

I do not know whether it was ever justified to have 18 year olds and 11 year olds in the same educational unit, but it is surely not now. The earlier social maturity of our young people today is presumably not at issue, with the voting age at 18 as an official mark of recognition. It is not just "adult atmosphere" these people need, though that is important, but affinity of age with their colleagues, and, educationally vital, the fruits of deploying the resources of large institutions horizontally rather than vertically. Then again there would be advantages in separating those studying compulsorily from those doing so voluntarily: to point to the legislative and administrative gain is not a mere matter of expediency, for the resulting changes would help in securing the sought-for relationship between teacher and taught. The

presence in the voluntary sector of part-time as well as full-time students would surely work (as it does in colleges now) to the advantage of both. Co-education would presumably be the norm and I am aware of no serious arguments against (and a few in favour of) such a state for young people of this age.

Amongst the various features of the tradition said to be at risk the best-known are perhaps the withdrawal of sixth form teachers from younger pupils and the more nebulous loss of sixth form influence on the lower school. Sixth form teachers probably always taught younger children to a lesser extent than was claimed and they probably do so less now than ever. In any event there seems to be more logic in using scarce skills at the point of greatest impact, and more likelihood of finding people who are good teachers of children of all the ages that they meet if they meet only a limited age range.

The "loss of sixth form influence" argument seems even weaker. Even where sixth forms have existed (not in every secondary school by far) it is arguable whether the downward influence has always been universally beneficial, and they have obviously delayed opportunities for leadership to younger pupils who in these days of earlier social maturity might in increasingly large numbers have benefited from them. And what advantages can be claimed for the sixth formers by the presence of the younger children?

The "leap in the dark" approach is, in a sense, unanswerable, for no-one can ever know in education whether any change will be better until after it has been tried—if then. But by the same token it does not need to be taken too seriously as it appears to reflect only general conservatism with possible overtones of vested interest. The related argument, that transfer at 16 would be an unhelpful break in continuity, has the merit of being specific, though not, I should have thought, too many other merits. Why we should baulk at a change for near-adults after four or five years in one school when we cheerfully uproot infants after two is hard to fathom. Any move for any individual can be upsetting, but equally it can be an incentive. No-one proposes a completely seamless garment for education: it is a question of the best age for people to make their moves. Can it be seriously argued as likely to be too disturbing for a boy or girl to move to another educational institution when many of his or her colleagues are leaving to start work? The argument that the break would provide an easy opportunity for some to escape the net postulates a fairly sordid level of relationship between existing sixth form teachers and potential pupils. Is it heard so often now that some junior colleges are operating? The further education colleges have not so far been found lacking in the arts of persuasion, and the relationship between institution and client would presumably be similar in the junior colleges to that now in further education. It seems likely, of course, that the attractions of "going to college" will encourage many who could not face the sixth form to continue their education.

Perhaps at this point I had better make it clear that I am not talking in terms of putting an end to the contest between rival sectors by one or other winning the battle. I assume that new organisations would be created that would undertake on a two- and three-year basis all the sixth form work of their localities, together with other appropriate full-time courses, such as O.N.D. They would cater for part-time students, too. I assume that such places would be able to do more than provide "adult atmosphere" of an unspecified kind but would cater for the varying psychological and social needs of individuals who might at various times and in various ways need varying admixtures of theoretical study, practical application and opportunities to live and work in the world outside.

There is no space to rehearse in any detail the arguments for or against. But one problem should be mentioned if only because it reminds us that the difficulties for the secondary schools, labouring under the weight of so many traditions, do not begin with the sixteen year old. What of the 15-year old in the junior college era? What, first, of the flyers, held back from sixth form studies by the need to complete "O" level and reach chronological adulthood in order to conform with this divided system? There could be a difficulty for them, though compared with the confusions and inadequacies that the less-favoured intellectually have often to contend with at present, it would be on a small scale. At any rate ingenious administrators would make nothing of this problem given the task of solving it. In my own view, if the junior colleges offered the two- and three-year courses, or fast and slower stream approach of the sixth form, there would seem little to be lost by the precocious student transferring, with all his earlier-matured talents, at 15.

A greater problem, both numerically and qualitatively, relates to those who at an earlier age than 16 are felt to have vocational needs that cannot be satisfied for one reason or another by the schools. Characteristically we tend to associate these needs with the less able, and to assume the vocational poultice will suck out whatever is noxious in their educational blood-streams—an assumption to which we can return later. However, a range of interesting and enterprising experiments have already been made, notably in the provision of linked courses.

Looser associations

Gerald Fowler can conveniently introduce the topic:

> "A healthy development of recent years, affecting mainly pupils in the last year of compulsory school attendance, has been day-release from school to college, usually for technical, scientific or commercial studies . . . The number on such 'linked courses' was about 12,000 in 1970."

But he goes on, showing how compelling is the notion of junior colleges:

> "Such schemes are however peripheral to the central problem. Nor is any simple solution, by division of courses between schools and colleges, practicable."

Elliott in the address previously quoted also seems to be luke-warm about linked courses. He begins with a compliment:

> "The linked course proposal is apt to be accorded less respect than it deserves. Those whose predilection is for the sensational regard it as a dull, unenterprising idea."

But he soon modifies his support:

> "It is admittedly easy to suggest prudent, thrifty and encouraging virtues like co-operation and the give-and-take which make marriage so good for the character. The phrase 'linked course' slips glibly off the tongue and, because so often heard, is accepted uncritically. In truth, as many marriages fall short of triumphant success, so do many linked courses."

His reservations are chiefly of the realistic, institution-oriented kind once more:

> "First of all, the institutions involved must be conveniently located and temperamentally suited. It is not just the head and the principal who are marrying, but the staffs of both institutions. A good deal of organisational ability is called for."

However, Elliott also expresses a more fundamental doubt:

> "It is easy to congratulate oneself for having achieved a bridge-head at the sight of pupils wending their way to college; one must be sure too that when they reach there they will get what they need."

In an interesting article Bill Skinner, Principal of Melton Mowbray College of Further Education, after an admirable statement of objectives, tells us what those who wend their way to him actually get:

> "For the 14 to 16 age group in the upper schools, a wide range of courses is available, including building, general engineering, automobile/agricultural engineering,

electrical engineering, commerce, office practice, typewriting, speedwriting, home economics, needlecraft and art. Several of these are taken as C.S.E. subjects, for which we have submitted our own schemes under the Mode 3 approach, and in these practical subjects there is a vital place for continuous assessment.

"In general, pupils following these courses spend one half-day a week in a 'workshop' situation where the emphasis is on practical work; and one half-day a week on related studies. The whole of this work is interrelated with their studies back at school."

One of his partners in the scheme, Bernard Brewster, head of King Edward VII Upper School, Melton Mowbray, augments this, with some constructive comments on practical problems:

"The College is one mile from the school. Half-days or whole days therefore are, in the main, essential. There has been some transference of discipline problems, partly due to the opportunities offered by this change of environment for 14- to 15-year-olds. Some damage has been done occasionally at the College. College terms and working hours do not coincide always with those of the school. The reporting of absentees and the numbers of those taking school dinner, has caused problems—trivia perhaps, but such things can become major irritations if not organised properly."

What of time-tabling, the problem that springs at once to mind? Mr Brewster says:

"Link courses offered as part of option schemes need to be dove-tailed; and great blocks of the time-table are tied and immovable. Fortunately, the College time-table is more flexible and its Principal most accommodating."

He adds the familiar warning:

"Indeed, satisfactory personal relations between Principal and headmaster seem to be the most essential basis for the successful operation of link courses."

There is a reminder later in Mr Brewster's article that in our system local education authorities are responsible for the general character of secondary and further education in their areas:

"The Education Office is alive to the fact that an agreement has to be reached about the staffing of link courses —otherwise, pupils on roll will be counted by both establishments. In this County, it has been laid down that for every teacher engaged on a link course, the school will provide ·45 of such a teacher, the College ·55."

Here is an authority, one feels, not content with mere rule of thumb, fair-shares-all-round techniques: ·45 and ·55, no less. Mr Brewster continues:

"Link courses are also expensive to run (e.g. the use of electricity circuit boards for the applied electricity course), and an agreed contribution from the school's capitation is made to this end."

And in his remaining comments there emerges a mixture of tiny financial and major educational issues, frighteningly intermingled.

"Again, this can open up difficult questions—how far justified is this expense vis-a-vis the possible neglect of other areas of school work; or, again, should engineering be considered as coming under the total allowance for crafts as a whole and be subject to curbs on expenditure which other sections of the craft department have to suffer?"

Could it be that under the guise of encouraging individual initiative, some L.E.A.s have in effect thrown their educational institutions into the deep end, without preparatory training or water-wings?

One wonders to what extent authorities have produced schemes, in the exercise of their responsibility under the Act, and to what extent they have regarded it as a matter for individual initiative? Do L.E.A.s make conscious and informed policy decisions to embark on schemes and develop them? Presumably there is such a policy in Kent where by 1971 forty schools and seven colleges were offering one- and two-year linked courses. It does not seem to have overcome what one would have thought were fairly fundamental problems. Sybil Brown writes about the scheme as follows:

"... if a number of schools in an area are using the same college on the same day for a particular subject. Where, as is usual, the school children form a large enough group, the college arranges the course as a special class; otherwise school children may join for part of the time groups of young employees on day release. This mixture of young people—some still at school, others at work—can, like the freedom of the college style, bring both benefits and problems."

The spirit of happy compromise implied by the final sentence is surely not an appropriate philosophy for such an exercise. What kind of day-release course from industry is it that can accommodate school pupils also? Setting aside the social problems of such a mixture are there not serious educational hazards for both groups?

Much of the comment made about these schemes has a superficial air; the accident of the particular situation seems to be assumed an essential condition. For example, Sybil Brown reports that assessment of the examination schemes is thought to be a problem for college staff "who may not be trained and experienced in C.S.E. work". This seems an odd comment since continuous assessment and moderation in one form or another have featured more in further education than in the schools. It does not appear to chime with a point made by Mr Brewster in the article quoted earlier:

"The O.N.D. course likewise caused some headaches—school staff were unused to regular internal assessment of students' work (although C.S.E. Mode 3 has now familiarised them with this technique)."

Either way it is a matter on which local education authorities might be expected to give thought and if necessary tuition, before instituting, or allowing to happen, schemes of this type.

Half measures?

It would be possible—and some more docile contributor might well oblige at this or a future conference—to go into greater detail about the mechanics of sharing resources between schools and colleges, by linked courses and other expedients. But would this not simply prolong a story whose outlines are already sufficiently clear? Authorities can do it, if they want, and more particularly if their heads and principals want, and they can overcome the problems. But why should they want? They can expect modest gains in increased motivation through vocational stimulus, and at the same time more use of physical college facilities. But may there not be dangers in seeking solutions to the problems of one institution by farming out pupils to another?

If the motive is greater faith in the ethos of the other place than your own, then you are in some trouble educationally. If it is merely that you want to use the other fellow's electricity circuit board, quite apart from the fact that it will make a hole in your capitation allowance, are there not better ways of acquiring specialist facilities? An educational system is surely incomplete and unworthy of a developed nation if its secondary education has to depend on injections of resources or philosophy from outside itself. And should not every educational institution, especially in this institutionally-dominated set-up, be able to call its educational soul its own?

Fred Flower, writing as a college principal, warned in a recent article about the danger of the schools regarding these links as panaceas. He referred particularly to some of

the children about whom we are currently, and belatedly, feeling great concern, those whose agony is prolonged by raising the school leaving age and whose ills will not be cured by pressing a vocational switch on and off a couple of times a week. Their condition, introverted, discouraged and apathetic, needs another remedy:

> "These young people are convinced that their way of life, their conception of themselves and their aspirations are neither comprehended nor appreciated by their teachers. They feel a strong need for some kind of individual sympathy and attention."

Flower argues cogently for an education that looks at the whole of life for these sad little Robinsons. "Has further education," he asks, "anything to offer boys and girls like this? To our shame, the record of the colleges is, in this respect, no better than that of the schools."

Flower's regretful passing of the Robinson buck back to the schools where it properly belongs (the colleges have enough Robinsons of their own) should remind us of our first duty, to get right the philosophy and objectives of what we propose. At the level of resources, though, he also gives us a timely reminder, in case anyone were starry-eyed enough to think that further education comes cheap, that saving money is not only inadequate philosophically as a reason for pursuing these links, but unlikely to be achieved.

> "It is true that some education authorities demand that the ratio should be one teacher to between 5 and 15 pupils to make a viable 'A' level class in any subject, but we all know that subjects are taught in smaller groups than 5 in many places up and down the country. If we are prepared to stomach that we should be prepared to accept much smaller teaching groups in those areas of education where the need is much greater."

In terms of resources this question of staff is surely the really critical one. Buildings can be adapted relatively easy. What we have to contend with is the existence of two basically competitive systems, each seeking, very naturally and with proper professional pride, to provide most things to most boys and girls. Linked schemes, of course, do allow some staff sharing, but all their other shortcomings aside, they seem to make too small an impact on the reduction of overlapping competing courses for small groups of full-time students.

One scheme at least appears to have addressed itself seriously to the problem through co-operation this side of amalgamation. As Roland Wilcock, Principal of West Oxfordshire Technical College, wrote recently:

> "Systematic joint provision for 16–19 year olds has been going on in Witney for the past six or seven years. In its early days it took the form of formal co-operation between the then Witney Grammar School and the Technical College. . . .
> "What began as a partnership between a grammar school and a technical college had to adapt itself to the introduction of comprehensive education in the area. What now exists is the outcome of this response. The umbrella organisation is the West Oxfordshire Consortium, consisting of the four schools and the college. They 'consort' purely for the purpose of providing full-time education for the 16–19 age groups; for other purposes they go their own ways, although it is becoming apparent that providing for the 16–19s cannot be separated from providing for 14- and 15-year-olds. The West Oxfordshire Centre of Advanced Education is the instrument whereby the Consortium carries out its purpose.
> "This Centre provides three services: a system of publicity and careers and educational guidance in the schools; a programme of courses, each of which takes place at one of the five establishments, but planned as one programme and publicised as such; an admission procedure which operates right across the programme of courses, no matter where the applicant applies from or is applying to go to. . . .
> "It has been agreed that the schools will not compete with the technical college over the provision of vocational courses, that all four schools will base their 6th forms on a range of 'A' level subjects, and that the technical college will continue to provide full-time 'A' level courses as well. These have been divided into two kinds—'common' (English, Maths, French, German, History, Geography, Physics, Chemistry, Biology) and 'special'. Each establishment may provide any or all of the common 'A' level subjects but the special ones will be provided at only one of them, the technical college having the largest list with a couple of the schools covering such specialisms as Music, Home Economics and Religious Knowledge."

Of course I do not suggest there are not other, perhaps even better, examples of significant co-operation to be found in these islands. There may well be some to be found in Scotland. It will not have escaped notice, I imagine, that all the examples I have taken have been from England. This is shameful though perhaps not unexpected from an Englishman at a Scottish conference. One reason for the restriction is that it seemed more courteous to the host country to direct criticisms elsewhere. Another is simple ignorance.

I did in fact discover evidence that in Scotland, as one might expect, they did things more thoroughly than further south. As long ago as 1963 a working party under the auspices of the Scottish Education Department produced a document "From School to Further Education". It was reprinted again this year and I read it with admiration and great profit. However, it was not readily applicable to the highly individual argument I wished to pursue on this occasion. But it is on the cards that some group of Scottish schools and colleges has made a dramatic step forward that should have been recorded. I hope so.

Even more should I like to be told that there are plans in Scotland or elsewhere to introduce new schemes, based firmly on philosophy, that do not depend heavily on the accident of whether principals and heads are prepared to work together. What kind of a scheme is it that requires saints, geniuses or even above-average professionals to carry it out? Should we not ordain, like the apocryphal headmaster, that a new tradition will start tomorrow morning at 9 a.m.?

Certainly what we euphemistically call the traditions that have infused our education system so far have left us not only with an unhappy mess of overlapping and underlapping institutions but without effective means of bringing about planned change on a national scale. Theoretically we have such means locally but for all sorts of reasons the theory is rarely put to the test. Goodwill, close personal relationships, and similar accidents are too often critical factors in the ability of authorities to venture into desirable changes. Continuity of service should not be relied upon too heavily when we have done our best through Burnham Reports and so on to establish restless movement, change without progress, as the way of life in our service.

The Oxfordshire scheme demonstrates that significant progress can be made even within the present framework of traditions and assumptions. But presumably the needs that this scheme is intended to meet exist elsewhere, too, and are not being satisfied. Personally, I believe that the root of the matter is that we feel ourselves bound, because of undue reverence for the accidents of history, to preserve two sets of institutions for young people from 16 to 18. Even if the reaching-out from one set to another were better planned, properly organised and instituted everywhere this basic problem would remain. It would still be like starting the Channel Tunnel simultaneously in England and France and trusting to luck that the two ends met in the middle. Is there really no chance of producing a blue-print before we start drilling?

1. In this section I intend by this phrase normally those over 16. This I take to be the theoretical starting age for institutions offering post "O" level, post C.S.E. or post-statutory leaving age courses to full-time and part-time students. The actual starting age could, and would vary. Similarly the normal leaving age would be 18 or 19. The institutions I have called, without much conviction, but for want of something better, junior colleges. I am indebted in most of the section to Deryck Mumford who has done so much to propogate the idea.

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Response: H. Fairlie

Mr Birley has presented to us today a most interesting and powerfully argued paper on the reorganisation of educational facilities for the 11–18, and particularly the 16+ age group. He has quickly accepted Mumford's statement that it is virtually impossible to get any two educational institutions to co-operate about anything and has moved to discuss what he feels is a very necessary re-organisation of the present resources for secondary and further education—in England.

I do not wish to appear chauvinistic when I say that his arguments are founded on English experience—he says this himself and declares his ignorance about the Scottish situation. Much of his argument for change would appear to rest on the existence of what I suspect is a competition South of the Border between school and college for the custom of that seal which apparently determines the accolade of a school—the sixth form. And certainly, if it is true that the 16+ academic can choose whether to pursue his "A" levels in school or in college, it could lead to a wasteful deployment of teaching resources. This is especially so if the ridiculous difference in staffing ratios between school and college for the same type of work is to be maintained.

But why should the solution be that of Mr Birley, to transfer the sixth form to the F.E. College? Why not restrict, as we do in much of Scotland, the work of the F.E. Colleges to what they were created to do, instead of feeding these status hungry institutions? We try to insist that the 16+ proceeding from "O" Grade work to "H" Grade and beyond should do so at school. He is not normally admitted to the F.E. College to undertake a course of study which the Authority provides in school unless he is either over 18 years of age or has been away for a significant period of time.

Having said that, I must confess a great deal of agreement with Mr Birley's cogent arguments that there should be a break at 16+, and that there is today little community of interest between the short trousered child of 12 and the mustachiod youth of 18 who might well be a father with two legitimate children and have voted in a general election. But I submit also that there will not be much community of interest either between that youth and the apprentice bricklayer of 16 coming to college on 1 day/week.

I would prefer to see the common school to 16+, followed by entry either to a sixth form college, big enough to be comprehensive in its range of provision of courses and not restricted to the traditionally academic classroom subjects of the English Grammar School (but not the Scottish Senior Secondary), or to the F.E. College. Each institution would have a common purpose—Education—but each would have different specific aims. This is possible in England, but of course, as most will know, not so in Scotland where the S.C.E. Higher is taken in the 5th year of secondary education, following the "O" Grade in the fourth. Nor is it possible except in areas of significantly large population.

Turning, however, to the subject of this session, which is joint use of resources, the questions must be asked as to why this is presumed to be desirable, what resources, how it is to be done and who are to be the sharers. From the management point of view, in terms of maximum use of investment, clearly there is a case for (say) an expensive piece of science equipment, rarely used, being made available to several schools rather than each having its own. But if we assume that management has been good and that the colleges and schools are kitted up for what they have to do, and that these resources are fully utilised in these institutions, where is the argument? It is just not possible to share resources of teaching staffs—the form of training for day school work and college work is quite different and the qualifications of many Further Education teachers would be quite unacceptable in schools. I think that Mr Michael may wish to develop this further.

I am convinced that there are at different times "in-things" and "in topics" just as there are "in people", and one of these, current meantime, is this shared use of resources between school and college. In general terms I can see no need for it, no useful purpose to be served if an Authority has clearly defined the objectives of each and within each has secured enough customers to justify the provision made both in terms of equipment and of staff. I think Mr Birley was so right to toss the issue aside, almost contemptuously, in his first two pages and enter upon his discussion on re-organisation of educational provision for the 11–18 year olds. That is fundamental, and important, the other is fringe stuff and certainly in Scotland, neither an important problem nor an issue.

This is not to say that there should not be close links between school and college and there is no need for me to argue why. Brunton did this so well in his 1963 Report. And as both Brunton and Mr Birley point out, this liaison is particularly important for a specific group of pupils—those who have vocational needs and aspirations, those who will be leaving for the world of work at 16, those for whom, quite frankly, the type of diet provided in schools for the vocational aims of the academic has no meaning or purpose, and who would regard you as a museum piece if you attempted to persuade them of the benefits of a general education untainted by any consideration of their career and occupational needs.

Mr Birley looks fleetingly at the problem of young people for whom the raising of the leaving age means a year trapped in an uninteresting institution, the aims and objectives of which have little meaning for them. He calls them "little Robinsons", and it is for them that I think we should try to make enough resources available in college to supplement those of the school. It is with this group that the resources of two staffs who spring from different roots usually, and from different backgrounds, who have different attitudes and different mores, different understanding, can be shared.

We tried this some years ago in my County, with conspicuous lack of success. The scheme for half-day release from school to college failed for many of the organisational

reasons advanced by Mr Birley. The colleges did not seem able to advise the schools in advance of what facilities might be available from year to year. (I may say that they were then in a situation of growth.) Too often courses were planned and had to be abandoned because of unexpected demand by F.E. Courses for accommodation. These are no longer problems—indeed the reverse is the case.

The attitude of F.E. staff was not conducive to success. I am not convinced that their general attitudes were those traditionally expected from the teacher of the 15 year old. Their interest was not child centred nor were they educated or trained to the pastoral requirements of their commitment. For instance, when discipline was difficult, pupils were simply dismissed from the college and no-one advised.

Mr Birley has, of course, pointed out these organisational problems but I am convinced now that they are not insurmountable and that the present time is favourable when colleges are dependent upon such schemes to retain staff who might otherwise become redundant. This might well be the time to establish the highway which, when built, will continue to be traversed. So much so, that we are trying again this year with a programme of 1 day a week courses, 36 in number, each extending over six weeks, to afford these pupils the opportunity to see what particular jobs will entail. For one college alone, for this term alone, some 1,300 applications have been received for these courses and the number of pupils concerned is 600.

In this narrow field there is obviously merit in sharing resources in the way that I have described. But to become carried away with the idea as a general one would, in my view, be foolish. I see little to be gained except for the organisation man who loves to organise without consideration of ends. There could be much to lose. I think Mr Birley agrees with me. He has given much thought to his paper; he has provoked much thought in us far beyond the narrow confines of his remit. I don't blame him, for the remit itself hardly justified, in the Scottish context at least, a paper of any length. Indeed we thank him for the significant contribution he has made to the continuing debate on the future organisation of education for the 11–18 age group.

Response: D. P. M. Michael

I begin where Derek Birley ended with the image of a Channel Tunnel started simultaneously in England and in France, trusting to luck that the two ends met in the middle. A small family firm in West Wales, Jones Brothers of Llareggub, submitted the lowest tender ever for the construction of the Tunnel. One brother proposed building from England and the other from France. They were asked the obvious question, what if they didn't meet in the middle? "What are you worried about?" said the elder brother. "If we miss one another, you'll get two Tunnels for the price of one."

It would be a travesty of Derek Birley's arguments to suggest that the Jones Brothers analogy holds good at all points, but I hope to show that there is more virtue than he will admit in a duplication, or even a multiplication of routes through the stormy 16 to 18 seas.

I am aware at the outset of two constraints upon my Response. First, I have read with profit Derek Birley's book "Planning and Education" and therefore find it difficult to stage a quarrel with the author. Second, members of the B.E.A.S. are likely to deplore administrative untidiness and favour simplification and unification in the management of resources. And yet, as Dickens reminds us in a comment on a deplorable headmaster, Wackford Squeers, "He had but one eye, and the popular prejudice runs in favour of two." A pair of educational systems may be as valuable as a pair of eyes, a pair of ears, or a pair of legs.

To begin at the beginning, some of us have long considered the views of the Principal of the Cambridgeshire College of Arts and Technology, Deryck Mumford, slanted and simplistic. A more credible and more acceptable case for the importance of Further Education for many pupils aged 16 to 19 comes from a Working Party set up by the Association of Technical Institutions, the Association of Principals of Technical Institutions and the Association of Teachers in Technical Institutions. Here Deryck Mumford was only one voice among the eleven members. The Working Party's deliberations culminated in the advocacy, not of Junior Colleges or the like, but of full partnership between schools and colleges.

The F.E. Working Party makes its bid for a major portion of 16 to 19 pupils on a full-time basis on the alleged grounds that:

(1) an alternative to school is desirable for many—we all grant this;
(2) the colleges have a "direct" approach to learning—which seems to mean that F.E. students are more purposeful and their studies more purposive;
(3) colleges provide for a vocational motivation—which in part repeats the previous argument;
(4) the role of the colleges allows wider scope—which seems a partial repetition of the two previous arguments;
(5) colleges allow scarce and expensive resources to be used more extensively—an argument for wider sharing, not for depriving schools of resources;
(6) colleges are truly comprehensive—for some people, a double-edged argument.

All six arguments, which appear on closer inspection to add up to no more than four, are adduced in favour not of decapitation of the schools nor of curtailment of the colleges in the name of rational re-planning, but rather of fuller co-operation between schools and colleges.

Derek Birley is right to argue that there is nothing sacrosanct about history even—if I may so say wickedly to the Principal of a Polytechnic—about recent history which has given us the binary system of Polytechnics alongside Universities. He is wrong to suggest that we can disregard the past and the present when we consider the future. Of course we have to tinker with what he calls a "compromise machine". At this date, we may modify the design; we simply cannot afford to re-design it. And we must all work together on modifications, which is why the Headmasters' Association have long urged the formation of Liaison Committees linking schools and colleges.

The West Oxfordshire Centre for Advanced Education is always quoted as an example of collaboration between one college and some schools. The brochure issued by the Joint Directors makes interesting reading. First in all the preliminary courses, as in all schools, there is great emphasis laid upon General Education. With the exception of facilities for practical work in Agriculture and presumably better opportunities for engineering workshop practice there is little even in West Oxfordshire that any large, purpose-built Comprehensive School could not already offer. Indeed, languages are sadly limited to two, French and German. Within the Consortium there is a restriction upon the number of Arts-plus-Science combinations possible. It is not evident that the time-table could be made and remade annually as is usual in schools to fit the individual needs of pupils.

Clearly, even where you combine forces in perfect amity, preserving the autonomy of separate institutions, you still cannot satisfy every need. A limitation then of resources to the schools alone or to F.E. Colleges may seem economically attractive and may appear to make sense administratively but, as you all know, the saving of cost is seldom matched by the increase of benefit. I recall that Derek Birley has himself elsewhere castigated an expensive accounting operation, intended to save money, which in fact, cost more than

the amount of the money saved! That a school place costs less than an F.E. place is not proven, as they say in these parts, but it's easily arguable. We do not concede the logistical argument.

The Pilkington report on class sizes in colleges of F.E. revealed a serious under-use of scarce resources, but at the time it was partly explained as inescapable in the process of expansion. I have no up-to-date facts and figures since F.E. Colleges are coy about the numbers of places filled and unfilled; success and failure rates; the exact nature of their liberal studies; the extent of their pastoral provision; the huge percentage of their teaching staffs not trained for teaching; their percentage of good Honours graduates, and much else.

I accept that there must be wasteful overlapping in the age-range under discussion. Where waste is identifiable, steps ought to be taken to remedy it. In future all new school and college 16 to 18 building should be planned for integrated use. Existing facilities should be more widely shared. Sixth forms may have to be pooled as the I.L.E.A. suggests. Sixth formers may have to be grouped into Sixth Form Colleges (not Junior Colleges under F.E. control). Some F.E. courses that could more appropriately be offered in schools should be shed. Certainly schools ought not to have to continue to labour under the disadvantage of not being allowed to recruit craftsmen and craftswomen legally entitled to instruct in F.E. Colleges.

The Institute of Careers Officers the other week produced a report "Linked Courses and School Leavers". They threw considerable doubt on the efficacy of link arrangements made (I quote) "for the administrative convenience of colleges and schools rather than the needs of pupils . . ." "It is simply not good enough," they continue, "to lay on courses only where a College finds it has spare capacity."

I speak from experience of using pre-vocational linked courses for my own boys and girls, although we have now dropped them since we have moved to vast new properly-equipped buildings where we can ourselves provide courses for boys in building, in vehicle maintenance and in electrical work, while for girls there are courses in commerce, including typing, and in home management. We do not yearn after Melton Mowbray pie, nor do we have the disciplinary irritations mentioned by the Headmaster of King Edward VII School, Melton Mowbray.

In the schools we can ensure that any vocational education is an extension of general education. We know that vocational training alone, as distinct from vocational education, runs counter to the whole concept of R.O.S.L.A. Not only this but our pupils are entering an era of greater job-mobility when they will require not merely one specialist trade but further training and re-training for jobs not yet devised. Does vocational Further Education fully allow for multi-vocational Further Education? Does Further Education fully allow for Leisure from Vocation?

Derek Birley is unhappy about what he calls emotively the "7-year stretch" of secondary school education. It is a 5-year compulsory "stretch", if that is the word, followed by two further optional years. Crowther's panegyric on the Sixth Form may need up-dating but it must impress everyone that increasing numbers of pupils are coming back voluntarily to the 6th Forms. Admittedly, the growth in the number of pupils seeking eventual entrance to Higher Education has been explosive in all Western European countries except Western Germany. Nor should we forget that in the schools we are catering for Higher Education, not merely for Further Education.

We claim our elongated age-range as a virtue; we know continuity to be valuable both for pupils and teachers. We would not dispute that for some pupils, and not always the weakest academically, a change of scene at 16 plus may be desirable. For most pupils enforced discontinuity would be disastrous. We have the immense advantage of knowing all about the potential and aptitudes of our pupils at 16 plus. The foundation of 6th form study is laid by men and women who see their students through to a challenging and acceptably high level. There is great difficulty in maintaining academic standards where there are 11 to 16 schools. And a cut-off at 16 plus would necessitate at the tertiary stage wasteful repetition of "O" level and C.S.E. level retrieval courses proper to the secondary stage.

At a time when we are considering ways and means, whether by C.E.E., N. and F., or by some other arrangement, to broaden 6th Form and Further Education, it is horrifying to hear suggestions that would inevitably lead to a narrowing of the educational front. Words and phrases like relevance, college education, adult environment and other progressive vogue-words conceal from the hearers, and sometimes from the users, retrogressive notions.

I hope that I have said enough to show that I am not persuaded by Derek Birley (I use his own language) to leap into the dark. You may recall that the phrase, a leap into the dark, was first coined by Hobbes to describe death!

We in the schools prefer to continue to develop our own tried and tested Channel Tunnel. We shall improve and enlarge it. We shall cut through where possible into the adjoining newer, narrower Tunnel of Further Education in order to obviate the unnecessary multiplication of rails and to reduce the cost of track-maintenance.

I hope, Mr Chairman, that I may have made some small contribution to the Further Education of Derek Birley.

Problems in Practice: A synopsis of the eight discussion group reports

E. A. Ewan (Editor)

As originally planned, the two discussion group sessions were to be concerned respectively with Mr McGarrity's paper on "Staff Resources in Secondary Schools" and Mr Birley's on "School and Further Education: Joint Use of Resources".

In the event, owing to over-running of both plenary sessions preceding, discussion time was severely curtailed, but members were able to give attention to certain major issues. In their consideration of Mr McGarrity's paper and the responses of Mr Robertson and Mr White, the groups concentrated on four main topics: the place of models and norms, public administration aspects, including decision-making and accountability, the source and nature of resources, and finally objectives and value judgements. Some similarity of emphasis was apparent in the discussion of Mr Birley's paper and those of his respondents, Mr Fairlie and Mr Michael. Aims, objectives and needs were again prominent, and in this context some account was taken of differences between Scotland and England affecting the problem of school/further education duplication. The same general concern about questions of effectiveness, efficiency and accountability manifested itself, but there was more emphasis in the second discussion session on steps towards a solution and the practical problems involved.

Staff Resources in Secondary Schools

Models and Norms

Generally, the Scottish attempt to establish a mathematical model for secondary school staffing was welcomed. In an era of scarcity of resources often exacerbated by severe maldistribution, the model offered a rational, comparatively bias-free means of calculating staff needs on a much fairer basis than existed before. Moreover, the application would facilitate close scrutiny of the implications of various forms of school organisation and course options, so providing a factual base for planning. Its objectivity and apparent practicability, in Scotland at least, were felt to be much superior to the largely disappointing English system of quotas, the latter falling short of desirable standards of objectivity and sensitivity.

Some members expressed suspicion as to the true aim of the survey underlying the model. Was it to improve education, asked one member, or simply base economic efficiency? On the other hand, to those who feel the introduction of any framework of objective assessment of needs into the delicate realm of educational human interaction is an erosion of the calling of the professional, the answer must be that where resources are scarce and subject to intense competition from a variety of interests, the attempt to establish some effective means of collecting information about the implications of different allocations of these, or even some of these, resources is a necessary prerequisite to intelligent discussion. In the absence of such hard information, not only efficiency is likely to be sacrificed, but the very educational values so prized by the critics may recede beyond the horizons of possible achievement through withdrawal of the resources required to realise them.

In itself the model, as Mr McGarrity himself pointed out, "is merely a set of logical steps which produce a teacher requirement according to the values assumed for the input variables" (p. 7). That is to say, it is strictly an informational, not a prescriptive, tool. His next comment, that "It is therefore entirely neutral and does not itself incorporate values," raised some doubts: not all members were prepared to concede the neutrality of the model feeling that local education authorities might well be tempted to use it prescriptively. The group in which this point was raised did not have time to pursue its enquiry whether any model could be value-free.

Two other criticisms of the model emerged: first that it was too sophisticated, and second that it was not sophisticated enough. In one group there was a general view that the sophistication of the method was not appropriate or justified at national or local government level, where its nicety of assessment was negatived by less controllable factors related to supply, change of educational policy and, locally, of specific environmental circumstances. There was a preference for cruder assessments of resource allocations on a total roll basis, one for teaching staff, one for non-teaching staff and other resources, and a third allocation based on specific need to be allocated on teaching staff, non-teaching staff, or other resources at the head's discretion. It was suggested that at national and local authority level all that was necessary was to check on departures from a broad tendency.

It was thought that the method would be helpful to heads of schools and of departments or courses in assessing the demand for staff and deployment of staff, but it was stressed that over-sophistication could be counter-productive by causing resentment if the "customers" did not understand what was happening. The danger mentioned by Mr McGarrity, of confusing the illustrations with recommendations, was very great, and the approval expressed was of the method, not the formula.

Those who felt that the model was not sophisticated enough based their argument mainly on the point raised by Mr White that it took insufficient account of the constraints of accommodation. Mr Brodie conceded this and expressed the hope that the model might be extended to include this factor, but felt that accommodation was not a major constraint in Scotland. While those heads unfortunate enough to have to cope with "economy"-sized classrooms unable to accommodate more than twenty-eight to thirty pupils might not share Mr Brodie's optimism, no doubt their problem could be met by a flexible application of the model.

This depends entirely on the use made of any norms derived from it. From the schools' point of view the actual norms established are more significant than the model by which they are derived, and a great deal of discussion was given to norms in general and the suggested norms of the Scottish documents in particular. Several features of norms commanded wide approval.

First of all, the fact that they were stated publicly along with factual data about actual staffing provision throughout the country offered a sound basis of comparison and an incentive to reduce the disparities among the various education authorities. Further, their publication was of interest not only to the teacher and the administrator, but also to the public, who could thereby gain a clearer understanding of just what they were or were not getting for their money. It was suggested that this might help ease the problem of maldistribution: an authority whose schools appeared grossly

over-staffed might find its ratepayers questioning the expenditure, or even face reduction of rate support grant—perhaps a little less immediate than the pressures for improvement likely to arise in an area publicly shown to be seriously underprivileged in staffing.

Forward planning of staff needs depends on some agreed standard of staffing provision. Irrespective of how these norms are derived, or how appropriate they are in themselves, they must be assumed in estimating future demands, and only when publicly expressed can they be scrutinised by all concerned. It is hard to see how anyone in education interested in a professional approach to the management of resources, and least of all those who have to accept the resources actually allocated, can be satisfied with an unexpressed standard known only to the central controlling body and kept secret from the customers.

Groups considered a number of other aspects of the normative approach in general with less approval. Some expressed anxiety about its inevitable undervaluing of management expertise at institutional level. Not only can it blur individual experience, and reduce the institutional manager's freedom, but it can also cover up quite serious mismanagement on his part. More fundamental still is the assumption in the normative approach of explicit criteria for efficient use of staff. A corollary of the notorious elusiveness of precise measures of effectiveness in educational practice is a corresponding imprecision in measures of efficiency in utilisation of resources.

The ever-present danger that by their very nature norms may become restrictive, a statement of the actual rather than a policy for the desirable, and so restrict development, was also voiced.

Norms for maximum class size were attacked on the grounds that these can be used to conceal real staff shortages, especially in relation to the specialist subject groups in the upper school. Perhaps here the objection is not so much to the principle of norms for maximum class size as to the actual figures suggested. None of the groups reported following up the more fundamental point hinted at in Mr White's response that concentration of thinking in terms of maximum class sizes may blind the mind to other ways of deploying staff: "Have we," he asked, "evidence . . . that the outcome of (say) 3 periods of teacher contact with a group of 20 would be less beneficial than a larger number of periods spent in much bigger groups?"

On the details of the norms actually suggested there was substantial further discussion. Some members expressed considerable unease that the norms were based rather on use and wont than a radical reappraisal of needs. Many felt that they were not flexible enough to deal with staff shortages as between subjects, nor could they allow for informed teacher opinion: in short, the emphasis was inevitably quantitative in a situation which demanded provision for qualitative assessment. Mr Robertson's demonstration of the discrepancy between the Scottish Education Department's planning view and the stark realities of the situation as seen and felt by the schools in areas like his own stirred much sympathy. One group summarised the situation in terms of a need for the consensus of professional people, not merely the rigid application of a slide-rule.

Public Administration Aspects

Three main themes emerged in this aspect of the discussions, namely decision-making, accountability, and local autonomy versus central control. Concern was expressed about the manner in which decisions were made for educational development, the relationships and co-ordination among the various bodies involved, e.g. central government, local authorities and institutions, and finally about the quality of the decision-makers. As an example of the last, one group alleged that following on Delany's work from first principles it was found that educationists were unable to draw the necessary parameters.

One point clearly established was the thrust towards central control stimulated by the prerequisite for sound decision-making of increasingly detailed and comprehensive information available only through the application of advanced technology which only a large and well-funded organisation could hope to provide. Consequently, decisions are forced further and further away from the point of implementation, with all the risks for practicality which remoteness involves: and there is also greatly increased scale of error should a wrong decision be made. Moreover it seems a basic contradiction of the ethos of a truly educational service that responsibility, and therefore accountability, for decision-making should be removed from the institution and the scene of action.

Information technology is not the only factor exerting pressure towards increasing centralisation of decision-making. Regionalisation has its effect as well, probably not a simplistic pull towards the centre, but a selective one. Sheer size will inevitably force the delegation of some decisions to the divisional or institutional level, for example, the appointment of staff, already largely delegated in many areas. Clearly, however, central government must concern itself with the training and supply of teachers: to allow staffing to run into a situation of oversupply would be intolerable both from a cost point of view and in terms of the diversion of scarce manpower from other fields—to say nothing of the human aspects for the trained but redundant unfortunates.

Over against the arguments for professional judgment and autonomy, several groups raised the question of accountability. There is a general trend in current British society to expect more accountability to the public in general as well as to management. In a corporate management situation education will have to compete directly with other services, some of which may serve apparently quite similar ends, for financial support. To do this effectively means not only being able to give an account of aims, objectives and the extent to which they have been achieved, but also to do so in terms the others concerned can understand, for example, treasurers, councillors, and the general public. It was suggested in one group that local authorities had in the past been over tolerant, that they had not sufficiently questioned the schools' use of resources. While this was admitted the proper question about criteria was raised. One member then raised the problem of virement as a major factor in limiting the effective management freedom of the schools. This interaction of virement and accountability was raised again in the second discussion group session, and accountability itself was considered at greater length in the plenary session following Professor Fowler's paper.

Resources

Although the title of the conference was Management of Resources, most of the discussion on resources in the group sessions tended to focus on the staff aspects. One group offered the explanation that the labour intensive system that education still was had caused people to think too limitedly about teaching and not about total learning situations. Even so, it was argued, the emphasis on staff was itself deficient in that too often no clear statement was made about the kind of staff required. Consequently there was not only the problem of the school apparently well staffed overall but with serious shortage in some departments, but also an inadequate analysis of the need for types of staff other than teachers. Pupil-teacher ratio was therefore felt by some to be a quite unsatisfactory measure of the staffing needs of a school.

The new structures of promoted posts emerging both north and south of the border suggest comparison with the Salmon reorganisation of the nursing profession, but nothing like that fundamental study of needs and roles has as yet been attempted in education. Too many still seemed to think of a solution in terms of more teaching staff instead of consideration of all available or potential resources in relation to the needs of the children. Open plan type buildings are an

attempt to encourage and capitalise on a changed role for the teacher. Some schools have gone so far as to introduce parents into the class situation as helpers in a number of specific roles. In some cases the teacher would rather have had additional clerical or auxiliary help, or even special items of equipment such as tape-recorders, television sets or C.C.T.V., but the system offered him simply another teacher or nothing.

On ways to combat the acknowledged evil of maldistribution of what seemed satisfactory staffing at national or even authority level, no easy solution emerged. It was generally agreed that an unlimited free market was incompatible with efficiency. Direction of labour, the obvious answer, was raised only to be dismissed as politically impossible in the present climate. Yet limited forms of direction have been practised for many years. For example the young teacher might be offered a post in a less desirable part of the authority area than that in which he wanted to work on the understanding that within a certain period he would be transferred to the part of his choice. Another inducement mentioned was help with housing. Experience with other devices such as additional salary payments and travelling expenses for teachers in designated schools has not proved generally successful.

Much disruption is caused by the inevitable time lag between one teacher's leaving his post and his successor's appointment and taking up duty. One group discussed this at some length arguing that one could scarcely talk about efficiency in the organisation and allocation of staff resources far less achieve it, so long as the transfer of promoted teachers was permitted on a nationwide basis at any time throughout the session. This created tremendous problems for the headmaster, yet the views of the profession demanded that plum posts in particular should be filled as soon as possible. Moreover, it was a practical necessity that interviews, since they were so time consuming, should be spread fairly evenly throughout the year. One way out of the difficulty would be a system of supply teachers; but in the balanced system of supply and demand which it was hoped to create, was there a place for supply teachers? Perhaps, the group concluded, the answer lay in making the "float" buoyant enough to allow for transfers. Probably the administrator would see a system of transfer only at the beginning of each term, particularly where a four term year is in operation, as not unreasonable.

Rather surprisingly the reports showed no evidence that groups had directly concerned themselves with the actual deployment of staff resources within the school as opposed merely to the obtaining of them. Perhaps preoccupation with felt shortage can explain this, but on the other hand it is when a particular resource is in short supply that how it is used becomes of greatest importance. This whole question is closely linked with that of types of staff and auxiliary, clerical and technical help. There is also the old problem that our present view of promotion and management tends to perpetuate a system in which the best teachers are removed from the teaching situation. Only rarely have authorities risked an alternative, but it has been done. At least one large state school in England is headed by a manager from the industrial field.

One group, however, did report a suggested solution to the inefficient staffing which impinges on the individual school. This was the idea that decisions at authority level should regulate the provision of courses in particular institutions throughout its area to avoid wasteful dissipation of resources. In practical terms this might mean allowing only one of three schools to teach Russian, or, to trespass into the territory of the second discussion group session, allocating certain courses previously offered in both a school and its local technical college to one or other.

Objectives and Value Judgments

A recurrent theme was the need for objectives or at least a proper sense of purpose as the context of resource management. Criticism was expressed of Mr McGarrity's paper for its failure to present its model and norms within the framework of an explicit philosophy of education; and some seemed to feel that the mathematical approach to resource management embodied its own arid philosophy of preoccupation with means and efficiency at the expense of ends and educational effectiveness. As others pointed out, this is a quite unfair criticism as the model explicitly provides for input variables expressing a whole range of philosophies, values and priorities, its function being not to prescribe any one set of these, but to enable the manager to learn quickly and clearly the implications for resources of whatever values he wishes to feed in. Careful thinking through and a continual appraisal of one's educational philosophy is a necessary concomitant to sound management, but it is sad when it is used as an argument to discredit the attempt to develop techniques of investigation and control of the means necessary to achieve it.

But not all groups were unanimous on the need or even desirability of having one's educational philosophy spelt out in operational objectives. Opinions in one group varied from "most teachers have implicit objectives but it is very difficult to write them down. In fact to do so is a waste of time" to "if you do not have explicit objectives how can you explain to others about what you are trying to do, and how will you know when you have achieved your implicit objectives?" Although this particular group reached no agreement on the need for objectives, it was conceded that some planning was better than no planning.

While the effects of rapid change on the setting of objectives and the paradox of planning for the unpredictable were recognised, there was, however, fairly general acceptance of the need to consider some kind of objectives as a basis for rational resource planning. Sometimes failure to spell them out clearly can result in the organisation spending much time and energy in the pursuit of what are quite fundamentally conflicting objectives. A good illustration was given by one group: teachers should recognise that some of their demands are incompatible; for example, no special financial incentives for some areas, no direction of labour, full staffs in city-centre schools.

Before the model can produce any results, the input variables must be decided. It is here that value judgments are crucial. Staffing demands depend largely on the type of curriculum followed. One particular kind of pattern was used to illustrate the operation of the model, but others could equally well be employed. The problem lies in providing not so much for different specific defined values in the sense of curricular patterns, as in ensuring that curriculum development itself is not stultified. It was suggested in one group that deliberate overstaffing ought to be encouraged to allow for training and curriculum development. In practical terms, this would mean a larger allowance for the "float" element in the model. Whether or not pupils should be given a choice and the nature of the choice, if any, are other value judgments. It must also be recognised that where choice is available, pupils will not always choose on rational grounds. For example a major factor in subject choice can be whether or not the pupil likes the particular teacher concerned, or what his or her friend has chosen.

Broadly then there seemed to be a substantial degree of support among members for the kind of approach to staff resources exemplified in the Scottish model with the important proviso that the input variables be decided firmly on grounds of sound educational values and practice, and not of narrow "efficiency" or administrative convenience. What is needed is for the educationist to learn the language of the administrative efficiency expert while retaining his own professional values.

School and Further Education Joint use of Resources

General Considerations

As the responses by Mr Fairlie and Mr Michael showed, Mr Birley's paper stirred strong reactions, especially in terms

of the solution he advocated. His indictment of the current situation of wasteful competition and duplication of resources found much more support. But some demurred: if one of the aims of educational organisation is to provide appropriate fare in an appropriate setting for the individual and his needs, then it is wrong to argue that the consequent deployment of resources is wasteful. Only when the aims have been established is it meaningful to talk in terms of efficiency or wastefulness. It was generally agreed however that there was a basic conflict between choice of institution for the pupils and ostensible efficiency in use of resources.

Two factors were observed to have operated to bring schools and colleges increasingly into what had been traditionally each other's territory, first the developing practice of presenting students in the technical colleges for the day school certificates, and second the impact of the raising of the school leaving age on the schools, in effect transferring the old pre-apprenticeship course students from college to school. This blurring of formerly sharp distinctions was further complicated by a coming together in other respects, particularly culture. No longer, it was argued, was it true to say that colleges had a more open climate than schools; in fact some schools, especially sixth form institutions, were more open than some colleges. Consequently there was a less sharp dichotomy between the types of young people attracted to the two institutions. Problems of discontinuity and loss of interest were also discussed and it was argued by some that we simply did not have enough evidence on the effect of change of institution on which to form a rational judgment.

Differences between Scotland and England affecting the problem were cited. Because of historical, sociological and demographic differences the degree of competition between school and further education was less in Scotland, and consequently the solutions required might also be different. North of the border most secondary schools were comprehensive both in enrolment and in the range of courses provided, and it did not make sense for the colleges to duplicate these services. In England, on the other hand, because of the greater prevalence of the grammar school, the colleges might have a different function to perform and a larger proportion of the age group to serve. Others again argued that in terms of specialisation, both of institution and of subject matter, Scotland and England seemed to be moving in opposite directions. To a considerable degree true of the subject, this is probably much less so of the institution; Scotland for example has yet to develop the sixth form college.

Pre-requisites to a Solution

The sharp differences of view taken by Mr Birley and his respondents served to focus attention on the need for a clear definition of the objectives of both schools and further education colleges in respect of their provision for young people of the 16–19 year age group. Agreement that aims and objectives must be defined leaves however the vital question of whose responsibility this is to be. More questions than answers were raised on this issue: should it be the headteacher and the principal? or what part should the local authority play? and, in view of the undoubted fact that what was most needed was careful overall planning to provide both an educational pattern and management of resources in schools and further education to ensure economy and efficiency, was there any real alternative to corporate consideration?

Further, before goals and objectives could meaningfully be developed, the needs of the young people concerned had to be taken into account as these must arbitrate the final solution. The urgent need here was for research to provide the information on which rational judgments might be formed. Some suggested that the tendency to put institutional considerations first militated against a proper analysis of the problems, and that preoccupation with organisational and administrative questions of the distinction between school and further education had operated to the detriment of the young people's interests.

Real progress in rationalising provision between school and further education depended on the elimination of the existing barriers of the distinction between school and further education. New attitudes were required on both sides. Schools' resentment of the colleges' encroachment on their territory in academic subject fields was only fired by what they saw as the colleges' envious search for status. Most people did not seem to be conscious of waste of resources and were little interested in furthering the cause of efficiency. For these attitudes, some members argued, there required to be substituted the recognition that the different attitudes of each type of institution reflected genuine differences of need, and that it might not only be wasteful from an economic efficiency point of view, but also mistaken educational policy for further education to try to offer too many academic courses and in so doing to fail to provide adequately for those whose needs it could best meet now. Another consequence of the present *laissez faire* development was the absence of any stimulus to preparedness for the radical constructive change required.

Others took the view that a less drastic alteration was demanded. They questioned the meaning of the distinction so frequently assumed between vocational and general education and felt that even to the extent they could validly be distinguished, they were not so incompatible as Mr Birley's respondents had implied.

Practical Problems

A number of practical problems in achieving any improvement on the present situation were considered. Among these the physical problems of separate buildings loomed large. Dispersed buildings produce great enough administrative complexity in a single institution as those headteachers or principals with one or more annexes well know; but when this factor is compounded by separate managements in autonomous units, the situation is even more intractable. Time-tables control the use of buildings and any co-operative ventures between school and college demand synchronisation of both staff and accommodation time-tables at least at the points of contact. This, many felt, was a real obstacle.

An additional difficulty pointed out was the human factor; joint use was an additional commitment forced on both school and college staff, thus producing divided loyalties, a first and a secondary responsibility. Pupils too, it was alleged, with their continued loyalty to school even while in college on link courses, tended to exacerbate this feeling. Within the college itself the low status of link courses promoted invidious distinctions among the staff. Two way sharing and transfer of staff between the two types of institutions was fraught with problems arising out of differences in qualifications and salary scales. Many of the further education staff lacked teacher training. Teacher politics as well as party politics therefore had a large part to play in either facilitating or frustrating any changes, and consequently vested interests created powerful lobbies to be overcome.

Legal aspects were raised also. How, for example, one group asked, did the notion of "*in loco parentis*" apply in the further education colleges? What was the position of pupils not yet having reached school leaving age attending the college for link courses? Closely related to this aspect is that of pastoral care. A number of groups gave consideration to this issue. Some urged the alleged lack of it in further education as a major factor in favour of keeping academic subjects in school so that pupils would receive full attention to all aspects of their development. Others took the position that for pupils of the age group under consideration the school system of pastoral care was oppressive and a very sound reason for making alternative provision in college for those who felt this way about school.

Steps towards a Solution

A comprehensive review of the existing situation to identify areas of overlap was suggested as the first step towards a solution. Embracing staff, accommodation, equipment and courses this would provide much needed evidence of the precise nature and extent of the problem. Differences in staffing ratios, qualifications, salary scales and conditions of service had kept the two sectors apart in any reviews of staffing needs. A joint schools and further education staffing survey, in terms of the young people to be served, was a priority in the eyes of one group.

Mr Fairlie's solution, a rejection of the whole idea of joint use of resources on the ground that both types of institution could and should be so organised as to make efficient use of their own separate resources, found little support in the discussion groups. Most, considering the problem as it appeared south of the border, recognised joint use as an aim both necessary economically and desirable educationally. Surprisingly little consideration seems to have been given to the Scottish distinction alluded to by Mr Fairlie between provision of resources and provision of alternative routes for people. None of the reports made reference to the practice adopted in Scotland where the student is not normally admitted to a further education college to undertake a course provided in day school unless he is over 18 years. This eliminates the duplication of provision for the same group of young people, and leaves only the question of what different contribution each institution can make to their education and how best equipment and other resources can be shared to achieve this end.

Members did, however, discuss a number of possible ways of reducing the inefficiency of the present situation. Those who concentrated on a subject or course based approach wanted first of all a great deal more research into time-tabling and the cost of offering specific subjects and varying combinations of subjects in both schools and colleges. At this point discussion tended to refer back to points made in the previous session on Mr McGarrity's paper, it being argued that centralisation or limited allocation of certain subjects and/or combinations of subjects should be effected among a given group of institutions within reasonable commuting distance. Such costs involve accommodation and equipment as well as staff, and there is also the educational cost of inflexibility and restriction of opportunity for the individual in a completely autonomous institution approach.

Among those who favoured a broadly parallel provision in school and college there was propounded the suggestion that overlapping and duplication should be permitted in popular subjects of mass appeal, but that minority subjects, particularly those demanding specialised staff, equipment and accommodation should be allocated to either school or college in a given area. Just how this could be done raised interesting administrative questions as to who would decide the allocation of courses and the associated resources and where appropriate advice to pupils regarding their choice could be provided free of the pressures of the competing institutions. Joint academic boards for each area college and its associated schools seemed to one group to offer a possible solution. Such an arrangement might facilitate decisions between the competing claims of school and college for the right to run any particular course, but increased rivalry to recruit young people to the various courses might well result. No suggestions were reported on how the joint academic boards might deal with this.

Two other solutions were proposed, each taking an opposite view of sharing resources between school and college. One, related to Mr Fairlie's argument, was that any attempt to have school share with further education be abandoned, and attention be directed simply to improving the efficiency of the school system by centralising and rationalising the sixth form among the schools either by limiting certain minority subjects to particular schools or by creating specialist sixth form colleges to provide for all sixth formers. (In Scotland these would have to include fifth formers as well unless the examination system were changed.) The latter, if independent, satisfied neither schools nor colleges, being seen as a threat to both and if, as in the Exeter authority, sited in the further education colleges, seemed to the schools nothing short of a total tragedy. Much more radical integration of school and college was envisaged by other members. Not content with ensuring some joint use of resources, they argued for siting school and college together on the same campus. Limitation of time prevented the elaboration of this argument and it was not made clear whether there would be one school or several associated with each college. If the latter, something like an American multi-institutional campus would be required with all its attendant problems of size and consequent dangers of isolation from the community.

In the nature of the conference, discussion groups could not be expected to arrive at considered conclusions. Posing important questions for further consideration, putting points of immediate reaction to issues raised either by the main speakers or fellow members of the discussion groups, and stimulating and even provoking one another to continued critical appraisal were the order of the day. In concentrating on practical aspects of the central problem of the balance between autonomous institutional and education authority planning and finance on the one hand and the corporate approach on the other, perhaps the discussions provided an appropriate exercise on the threshold of regionalisation.

Resources for Education and their Management

G. T. Fowler

1. If I were to attempt in this paper to consider every problem in resource planning and control in British education, it would require a volume to itself. I shall therefore beg many questions, and leave others unanswered. Many of them can be answered only by the exercise of—in a broad sense of the word—political choice. Implicit in much of what follows is that endemic problem of educational administration, the reconciliation of not obviously compatible aims. Efficient resource management is an aim to which many would now assent. Yet we seek to achieve it within a system said to be governed on the principle of "partnership" between central and local agencies and the organised teaching profession, and any action seen as disturbing the balance in that partnership occasions dissent if no more; it is not obvious that tripartite corporate partnership is the easiest way to achieve the most efficient use of resources, unless all the partners are assumed always to agree. Other widely accepted concepts could be held to strike at the root of local and institutional autonomy—for example, equality of educational opportunity, defined either as equality of resource input to the education of all children (at least up to a specified age), or as equality of output measured by the average achievement of social and ethnic groups, with inequality of input—the concept of "positive discrimination". Advocacy of wider participation in the government of education equally narrows the freedom accorded at least to local authorities, as well as posing new problems in resource management. Parents should be added to the list of "partners", we are told—whether formally in the management of schools, or less formally through the signature of petitions. Alternatively, the local "community", however defined, must be allowed to participate in school management. "Management" without some control of resources, or control of some resources, is vacuous. Such aims, if realised in policy, would thus add to the difficulty of securing the most efficient use of resources. At the same time, their statement poses starkly the problem of who is to judge what is efficient, and by what criteria.

2. At national level, there is now a well-developed system for planning and control of public expenditure. Annual Public Expenditure Surveys project for 5 years the total and the distribution of public spending, including that by local authorities. In theory, the system might result in an allocation of resources to the education service designed to enable it to achieve nationally agreed objectives. In practice, there seems no doubt that the system remains input oriented, with a strong element of bargaining between departments for their "fair" share.[1] Some Secretaries of State for Education will still see it as their task to "champion" the education service, securing for it the maximum possible resource allocation, while others will take the view that collective Cabinet responsibility for overall economic management must take primacy.[2]

3. The P.A.R.—Programme Analysis and Review—system ought to build into the control of public expenditure an output orientation, since it is concerned with reviewing programme objectives and establishing the most cost-effective means of achieving them. Yet, whatever its other strengths and weaknesses, there is no evidence to suggest that in education at least it has yet resulted in a fundamental examination of social and political objectives, and of whether they are most readily achieved within education programmes or by investment in a wider, if co-ordinated, set of social programmes.[3] Departmental barriers remain strong. Thus, if the objective, or one objective, of the new nursery programme is to reduce the educational effects of "disadvantage", it makes sense to ask whether that objective might not be better achieved *over a defined time-span* (which may be long) by investment of the same resources in housing, social welfare and health programmes. (Perhaps employment and pay policies come into the picture too). That is, might it be that not only can the education service not solve social problems originating outside education—a proposition now commonly accepted—but problems seen as educational can best be solved by action and expenditure outside the education system? There is no answer to this question, but there is no evidence that it has been considered inside government, in the context of resource allocation. Nor does Scotland seem ahead of England here, despite the advantage that the organisation of St Andrew's House under a single Secretary of State ought to confer. The input bias of the Public Expenditure Survey and of the preparation of data for it seems to be too powerful.

4. The Public Expenditure Survey can itself be interpreted as importing into the forward planning of expenditure greater precision and rationality than is the case. Examine the table on next page, which records the rate of growth projected for local authority expenditure on education in two successive public expenditure White Papers[4]—remembering that no great weight should be placed on the figures for the last 2 years in each projection, which merely show the effect of continuing accepted policies.

There is a considerable variation in the rates of growth shown in the two White Papers, especially on capital expenditure. Two possible explanations would be that the government had decided in the course of the year to devote a higher proportion of public expenditure to education, or that it wished to devote a higher proportion of national resources to public expenditure as a whole, with education getting its fair share. In fact, the principal change was that its projections of national economic growth showed the economy growing faster than had been anticipated the year before, so that leaving the other two variables almost unchanged, it could still plan to allocate more resources to education. Yet apart from the proposals for nursery education and for in-service education of teachers,[5] neither of which could affect spending significantly in at least the first 2 years, where there is the greatest rise in current expenditure, no new policies were announced. For the later years, these changes should in any event be offset at least in part by the effect of the continued decline in the birth-rate between 1971 and 1972 (the birth-rate is one factor determining the need for "roofs over heads" school building), and the lower rate of growth projected for higher education. In short, the variation in projected resource allocation to education appears to have little to do with education objectives or policies, or even with policies for controlling the proportion of G.N.P. taken by public expenditure as a whole, and much more to do with the expected rise in G.N.P.—a factor dubiously within the control of any government, and certainly completely outside the remit of the education "sub-government".[6]

TABLE 1

Projected growth rates for local authority expenditure on education and libraries 1972/3 to 1976/7, Cmnd. 4829 (November 1971) and Cmnd. 5178 (December 1972) at constant prices

Year	Projected % growth of education and library expenditure by local authorities			
	(a) Current expenditure		(b) Capital expenditure	
	Cmnd. 4829	Cmnd. 5178	Cmnd. 4829	Cmnd. 5178
1. 1972/3	3·9	4·3	−2·4	4·7
2. 1973/4	3·9	5·1	−6·4	−5·8
3. 1974/5	3·8	3·8	−7·7	−3·1
4. 1975/6	4·1	4·6	−4·5	0
5. 1976/7	N/A	3·8	N/A	1·2
6. Overall growth, years 1–4	16·6	18·9	−19·4	−4·4
7. Compound annual rate of growth, years 1–4	3·9	4·4	−4·5	−1·1
8. Overall growth, years 2–5	N/A	18·3	N/A	−7·7
9. Compound annual rate of growth, years 2–5	N/A	4·3	N/A	−1·9

NOTES

(i) Line 1 (1972/3): For Cmnd. 4829 the base figure used for calculating growth is the expected expenditure outturn for 1971/2, while for Cmnd. 5178 it is the actual outturn for that year.
(ii) Line 2 (1973/4): the "moratorium" on public building announced in October 1973 must affect the achievement of the capital expenditure target for this year, and may affect subsequent years too.
(iii) Line 5 (1976/7): there are no projections in Cmnd. 4829 for this year.
(iv) Line 6: the base figure is again that for expenditure in 1971/2.
(v) Line 8: the base figure is that for expenditure in 1972/3.
(vi) Lines 8 and 9: the annual variation in rolling projections of education expenditure for the next 4 years (not the *same* 4 years) is revealed if these percentages, based on Cmnd. 5178, are compared with those based on Cmnd. 4829 on lines 6 and 7.

5. This is of course a phenomenon which is familiar to all when cuts are imposed on education expenditure in consequence of national economic difficulties, as in 1968–9. To serve to remind us that the Public Expenditure Survey figures are a doubtful planning base came the moratorium on new building projects imposed in October this year, in the middle of the first financial year after the public expenditure and education White Papers of December 1972. University building is normally financed from capital, but local education authority building is mostly financed from revenue, through loans. Hence a moratorium on new building ought in theory to reduce current expenditure in subsequent years, at least until the building programme catches up with itself, if ever it does. The moratorium was however imposed because of alleged "over-heating" in the construction industry, not because of general economic difficulties. If the government's estimate of likely economic growth, and its policies for the proportion of G.N.P. to be taken by public expenditure and the share of that expenditure allotted to education, were the same in this year's Public Expenditure Survey as in the last, the moratorium on new building ought to result in the release of extra resources for other educational purposes, in the next financial year at least. (I hasten to add that this is a statement of theory, not a prediction.) Yet this change would flow not from a reconsideration of education policy, but from the problems of the construction industry. Resource switches of this kind are doubtless inevitable, but they make a poor planning base.

6. Resource questions can thus distort educational priorities. A more serious example of the same phenomenon was the consequence of the 1968 cuts, which, apart from the deferment of the raising of school-leaving age, bore most hardly on further education. This was not the result of considered educational judgment, but of the near impossibility of securing a significant short-term reduction in expenditure, or even growth of expenditure, on the compulsory age-groups. Dame Kathleen Ollerenshaw has calculated[7] that in 1968 only 1% of expenditure on these age-groups was devoted to improvements other than reduction in the teacher-pupil ratio (about 4%). The rest went to pupils in or about to enter school, and preparation for an increased school population and for the changing distribution of population. Demographic factors—essentially, the birth-rate and population movement—have of course been crucial determinants of the distribution of education expenditure. (The present estimate is that the peak population of primary and secondary schools will be reached in 1976, with a decline thereafter to the mid-1980s). The range of realistic political choice was thus sharply narrowed. Choice of course remained, as is demonstrated by expenditure on reduction in the teacher-pupil ratio in 1969.

7. The most expensive policy commitments of recent years which lay within the effective control of politicians and administrators have been to the constant improvement of staffing ratios in schools, and to the satisfaction of "social demand" (the Robbins phrase) or "private demand" for higher education. The former has affected expenditure on the schools, but both have affected expenditure on higher education. It could be argued that the commitment to a distribution of places within higher education which favoured applicants for science and technology has also proved very expensive, but it is difficult to disentangle the cost of this policy from the overall costs of universities and polytechnics. The following table shows the increase or decrease in the share of total education expenditure taken by selected sectors of education in a period spanning the lifetime of three Parliaments and two governments.

TABLE 2

Proportion of total education expenditure at current prices by public authorities (England and Wales) on selected items, 1959/60 and 1970/71

Category	1959/60	1970/71	Change in proportion
	%	%	%
1. Primary schools: current and capital expenditure	29	25·5	−3·5
2. Secondary schools: current and capital expenditure	33·6	28·2	−5·4
3. Further and adult education: students' tuition fees, other current and capital expenditure	10	12·6	+2·6
4. Training of teachers: current and capital expenditure on tuition and residence	2	3·5	+1·5
5. Universities: grants from public authorities to students for tuition fees and to universities for current and capital expenditure	7·3	11·6	+4·3
6. Maintenance grants to students on courses in categories 3–5, plus salaries to teachers on secondment for in-service training	2·7	4·3	+1·6
7. 3–6 together	22	32	+10

NOTE

Percentages are calculated from figures for expenditure given in Statistics of Education 1971, Vol. 5, Finance and Awards, H.M.S.O., 1972, Table 2.

Even when part of the cost of teacher education is attributed to the school rather than to the higher education sector, it is clear that resources were redistributed from the former to the latter. Even after 1967, when both the largest

political parties committed themselves to a policy of "positive discrimination" in favour of the disadvantaged, there has been a shift of resources towards higher education—which of course contains a high proportion of the non-disadvantaged (a more anodyne word than "advantaged").[8] To protest against a slower rate of growth in higher education expenditure—which is not necessarily the same as the rate of increase in numbers of students admitted—therefore comes ill from those who advocate discrimination in favour of the deprived, unless they also argue for a substantial shift of resources away from other activities, public or private, and into education.

8. These are examples of national resource management which either run counter to professed social and educational principles, or have not been justified in terms of them. There is a recent and interesting instance of what must either be a failure in government to decide which of two opposed educational principles is paramount, or of concealed determination of an educational issue on resource grounds. The English education White Paper of last December[9] says that "Government believe it would be right" for "*most*" extra nursery provision to be made in the form of classes attached to primary schools. "*Educationally* this has the advantage of avoiding a change of school at five." The Scottish White Paper[10] assumes a half-and-half division between such classes and separate nursery schools in the early years of the programme, and argues that "it is undesirable to attach classes to large primary schools since young children cannot easily cope with very large numbers of fellow pupils." "The Government" there concedes that it will bear its share of the additional cost of providing places in nursery schools rather than in nursery classes, while in England "no allowance" is made for this. The economic argument is clear, and two valid educational principles are opposed. In choosing between them as a basis for resource allocation "the Government" shows clear signs of schizophrenia. Alternatively, S.E.D. has done better than D.E.S. in bargaining for extra resources within government, or finally, there are concealed arguments about the optimum educational use of existing physical resources in Scotland and in England. On the evidence presented, it is hard to escape the conclusion that there is an element of the irrational in government's management of the available resources.

9. There is a further problem in both White Papers in respect of nursery education. Despite the statement in the English White Paper that "a clear perception of objectives" is necessary,[11] neither provides it. Both speak of the compensatory function of nursery schooling, but both also suggest that demand can arise from other groups than the disadvantaged. The difficulty is that if the programme is intended to be solely or primarily compensatory, it implies "positive discrimination" in the use of resources, whereas if it has multiple objectives it does not. The White Papers give no clear guidelines.[12]

10. My purpose in seeking to show that despite P.A.R. and the Public Expenditure Survey system resource planning for education in central government remains imprecise and not fully rational is to suggest a question: what would be the consequences if it ceased to manifest these features, or was believed by the participants in the planning process no longer to manifest them? One consequence might conceivably be that the education service received not a larger but a smaller resource allocation, if it could be shown that certain educational objectives might in the long term be better achieved through heavier and better planned investment in other services. More certainly, ministers and for that matter senior officials would come to feel increasingly constrained in their choice of policies: the field of rational choice would appear to narrow. They would thus be less sensitive than now to the arguments and pressures of outside bodies, including the organised teaching profession. A sense of certainty in central government of what should be achieved and how it could be achieved (however delusory) would also lead to increased direction or dictation to local authorities as to the use they made of the financial resources provided to them. Significantly, little discretion is left to authorities or colleges in the total number of students they may accept for courses of teacher education, or in determining the balance of training—a field where central government has, whatever forecasting errors it may have made, felt certain of its numerical rectitude. More precise and "rational" long-term resource planning in central government would then probably result in a diminution of the autonomy and the influence of the other "partners" in the government of education.

11. Finance flows from central to local government primarily through the Rate Support Grant. I mention it only because it is negotiated for fixed 2-year periods (with some allowance for inflation in the "off" year), and there is no indication of its likely level thereafter. This cannot be squared with the 5-year rolling programme of the Public Expenditure Survey: at the least preliminary decisions about the third year of R.S.G., on a rolling basis, would be required. The school building programme, rolling forward over 3 years, comes nearer to the P.E.S.C. model. The *annual* notification from D.o.E. of the permitted level of expenditure on "locally determined schemes" is furthest from it. Recently central government has taken to advising local authorities, again on an annual basis, of the limits within which they should seek to restrain increases in expenditure.

12. The Education and Arts Sub-Committee of the Commons Expenditure Committee last year doubted the wisdom of using so many different financing and planning periods in the development of specifically higher education.[13] (The picture of university planning differs, but is scarcely more compatible with the Public Expenditure Survey, since here 5-year *fixed* periods are used for recurrent and equipment grants, and shorter periods for the building programme.) Their argument can be generalised to cover all education expenditure. It is of course possible to exaggerate the degree to which these systems are out of phase with one another; thus, it was not accidental that the 1972 education White Papers, which embodied the university quinquennial settlement, and behind which doubtless lay detailed calculations of local authority education expenditure for a 5-year period, appeared at the same time as the annual public expenditure White Paper. Nevertheless, the detailed figures for local authority expenditure were not revealed; to have declared them would have been to give a hostage to fortune. The control of local authority spending remains one of the more sensitive mechanisms for short-term national economic management, within of course narrow parameters. Hence it is advantageous to central government if in this area financial planning continues to manifest elements both of imprecision and of hypocrisy, or concealment.

13. While local authorities themselves used the traditional one-year financial planning system, these disparities perhaps mattered little. Now however there is a powerful swing not only to corporate management, but to longer-term resource and policy planning within the corporate structure. Some 57% of local authority revenue is derived from government grant. It therefore makes ever-decreasing management sense that the expenditure for which that revenue is used should be planned on a 5-year rolling basis in both central and local government, but that the link between the two levels should consist for revenue of biennial negotiations for a fixed forward period, and for expenditure of annual notifications and advice, supplemented by a 3-year rolling building programme. The annual adjustment of R.S.G. to take account of pooled expenditure, so that no authority knows for certain until late in the day to what expenditure other authorities have committed it, is equally hard to accommodate within 5-year planning. Local authorities accept in any event that there must always be short-term adjustments to permitted expenditure to take account of a changing national economic situation. It might therefore seem desirable to encourage

their own long-term resource planning by giving them clearer indications of both forward revenue support and of permitted expenditure, always of course within the framework of policy commitments already announced or adopted.

14. The introduction of corporate management to a wider range of authorities raises other problems of education resource management, to which I shall do no more than allude. Education expenditure—whether it be on buildings, teachers, equipment or anything else—is, in the school sector at least, largely determined by demographic change. Authorities can neither individually nor collectively control the birth-rate. They can however exercise considerable control over the movement of population, and it is population shift which in part determines when and where a new school, or an extension to an existing school, must be built, staffed, equipped and operated. At the same time, some education spending is on social welfare objectives; a corporate management system ought to ensure that such expenditure is co-ordinated with that borne by social service departments, and that there is neither duplication nor neglect of desirable activities. Yet the structure of local government for England which will operate from April 1974 outside London, perpetuates the division of planning, housing, social services and education between two types of authority. That all authorities are now to be deemed "equal"—i.e. county are not superior to district authorities—may make problems of co-ordination yet more difficult of solution. The split is not the same in metropolitan and non-metropolitan areas, nor yet in Wales and post-1975 Scotland, but there is the same need for co-ordinated planning. Only the strongest continuing and formal links at both official and elected member levels are likely to achieve it.

15. The use of corporate management and long-term planning systems in local authorities could replicate the effect of their use in central government. They diminish the perceived short-term freedom of choice of those applying them, discouraging the entrepreneurial councillor or for that matter official. In one authority, where this approach has been used, an official from another department suggested that at least he could spot the weak points in the proposed budget for education and knew where to propose reductions. A long-serving councillor in the same authority confessed that while on the old system he knew exactly which levers to pull, and at what moment, to achieve a personal policy aim, he still had not discovered how to "operate" within the new system. When control of an authority changes hands, the newly elected majority must find that despite their promises to the electorate their freedom of manoeuvre within a three- or four-year term is very narrow, unless there is massive disruption of carefully co-ordinated programmes. Doubtless this was always true: what is new is the clarity, perhaps even the misleading clarity, of its perception which corporate forward planning brings.

16. The danger is that such perceptions will make both officials and elected members less sensitive to changing institutional, community and personal needs and demands. Better two-way communication with the public will not be effective unless it is seen to affect policy. Forward planning for the optimum educational use of existing and new school buildings may lead to rigid zoning and pupil-allocation schemes (no names, no packdrill!). If an education authority's objectives are specified in detail at an operational level, the perceived freedom of headteachers to set their own institutional objectives may be narrowed, and subsequent discussion with them of their own role in achieving the corporate plan may not alter this view. Above all, because the authority must plan the overall resource allocation for its schools and colleges, it may set staffing and equipment norms for all "similar" institutions which it maintains. Just as central government now tries to plan teacher supply on the basis of target overall staff: student ratios,[14] so local education authorities control the allocation of staff to their schools and may set overall norms for each sector. Indeed, since teaching staff still account for some two-thirds of the running expenses of maintained schools, and all staff for some three-quarters, the permitted teacher:pupil ratios is one of the most sensitive instruments to use for short- and medium-term control of expenditure. Other authorities seem to use the capitation allowance: an examination of any year's Education Statistics from the I.M.T.A. leaves the impression that reading and writing standards are not universally high partly because some authorities provide few books to read and others little upon which to write. One North of England county borough spent so little under the head of "stationery" in 1971/72 that I suspect its schools must still use slates—which presumably appear as "educational equipment".

17. Eric Briault has argued cogently[15] that a wide variety of combinations of teaching staff, technical and ancillary staff, and equipment is educationally permissible, that the needs of schools differ and that the most appropriate "mix" of these elements may best be judged at school level (with whatever expert guidance may be necessary), and that it is essential that all the elements in the package be planned as a single entity in order to secure maximum educational value from their use. This inevitably entails the devolution of some responsibility for resource management, within overall financial limits, to schools and colleges. It thus fits neatly with *political* demands for greater institutional autonomy, and for increased teacher, parent and community participation in management. The principal weakness in the Governors/Managers system has always been that they do not control any key resources, and thus have no "government" or "management" function. At the same time, the demands of sound management practice reveal the way out of the dilemma which I have suggested their satisfaction at government and local authority level creates. If the successful use of corporate resource planning techniques there has perhaps unacceptable political consequences, that is merely an indication that change in the *method* of planning and control has side-effects which can only be obviated by change in the *structures* of management.

18. I would enter three *caveats*. Firstly, local authorities could not content themselves merely with fixing overall financial limits for institutional expenditure. Resources of the same monetary cost are not necessarily interchangeable. Put simply, you cannot employ in total more teachers than there are available in total. Devolution of resource management to institutional level thus demands bargaining, and involvement of institutional representatives in corporate planning at authority level. If the authority merely adjudicates between bids, the process will be neither managerially nor "democratically" satisfactory. This might lead to the same consequence as the system by which central government divides the school building programme between authorities: some authorities still bid for a quite unrealistic allocation, effectively leaving free choice, and hence untrammelled power, to the Territorial Principal of the Department (or in Scotland, to S.E.D.).[16]

19. The second *caveat* is that the resources of schools serving the same community can with advantage be planned and managed as an entity. There is thus a case—not the traditional case—for "grouping" schools, primary and secondary together—or first, middle and upper schools, and perhaps even the F.E. college.

20. Thirdly, power implies responsibility, and responsibility can be exercised effectively only with knowledge. Manzer's judgment of the National Union of Teachers is apposite.[17] "The failure to comprehend the realities of politics in its policy deliberations is partly the result of a procedural gap in the internal government of the Union. . . . There is no effective downward communication of the framework within which . . . demands must be put and of the resources available for distribution to education. . . . The policy demands made by teachers . . . have been derived from long-standing ideals and goals and have refused to admit

the implications of the relative shift from educational theory to economic considerations as a basis for national policy determination." Whether this be the right judgment of the N.U.T. or not, the lesson for effective resource management in schools is clear. There must be effective communication *downwards* from the authority of the framework within which decisions must be taken, and of the factors which will determine the most effective use of limited resources.

21. It is in schools and colleges that the work of the D.E.S. on what have become known as the "Delany norms" is most usefully applicable. They have been used by the Pooling Committee to suggest target staff: student ratios for all establishments of further education, and its recommendations have in turn been used by a few authorities to impose staffing cuts on particular colleges. Here we have the perfect example of the effect of central resource planning techniques upon first the local authorities, and then through them upon the institutions, where managerial choice seems to decline to vanishing point. Yet Delany's work is invaluable if it is applied within institutions exercising some freedom of resource management inside predetermined financial limits. The more widely understood are the factors affecting staff utilisation, the more likely is it that professed educational objectives will be achieved. The most striking example of unconscious resource management with unforeseen consequences is undoubtedly the use of teachers for small groups of sixth-formers studying a wide and diverse range of disciplines. It may be argued that this is desirable on educational grounds—although it is hard to see how to justify an *overall* sixth-form teacher:pupil ratio lower in many authorities than the target ratio for universities—but at least the effect of this arrangement on the achievement of other educational objectives should be understood by teachers (and by parents) so that alternative uses of resources, and the use of alternative resources may be rationally considered.

22. Let me conclude on a provocative note. Wider and deeper understanding of the factors affecting choice in resource utilisation may have repercussions throughout the government of education. Firstly, it may become apparent that constantly to urge continued improvement in teacher: pupil ratios[18] is but one choice among alternatives more than one of which may be as effective educationally. It may also be understood that to seek this, plus improvement in the real value of teaching salaries, is to limit the number and scale of other improvements in the educational system which may rationally be sought—unless the aim is to reallocate resources from other activities to education. If that is the aim, it becomes ever more necessary, as both central and local government adopt a corporate management approach and long-term resource planning, to say from where, on what grounds, and how the reallocation shall be made, and what its consequences for other services may be.

23. Secondly, it may also be better understood that the organisation and content of education and the resources (both in volume and type) which it consumes, are inextricably interlinked. There is little point in denying to those from whom one demands new structures and increased resources any interest in the use to which they are put. That ministers and officials have no interest in the curriculum, in what is taught and learnt, has always been a myth. A hidden interest, perhaps expressed through resource allocation (for example, to the polytechnics rather than to the universities) seems to me more objectionable than overt, if co-operative, involvement.

24. Finally, the relationship between resource consumption and institutional autonomy may become clearer. In post-secondary education there can be little justification for the continued replication of the same or similar teaching material in a large number of institutions, at high cost. In the schools, some learning resources are most effectively used if shared, whether between schools or more widely within the local community, or throughout an authority's area. If efficient resource management demands a reconsideration of the relationship of central government, local government and institutions, it also requires schools and colleges to question the absolute value some have accorded to institutional autonomy and to some forms of teacher freedom. Ossification of attitudes is the enemy not only of effective resource management, but also of education.

1. See J. Garrett, *The Management of Government*, Penguin, 1972, cap. 5.
2. M. Kogan, *The Politics of Education*, Penguin, 1971, reviewed by Gordon Walker, *The Times* 1.10.71.
3. A possible conclusion from the American evidence: see esp. S. Bowles, *Harvard Educational Review*, Winter 1968.
4. Cmnd. 4829 and 5178, H.M.S.O. 1971 and 1972.
5. Announced in the education White Papers, Cmnd. 5174 and 5175 (H.M.S.O.), simultaneously with the December 1972 public expenditure White Paper.
6. Cf. R. D. Coates, *Teachers' Unions and Interest Group Politics*, Cambridge University Press, 1972, cap. 7, on the reasons for the lack of impact of the Council for Educational Advance in the late 1960's. For the concept of the education "sub-government" see R. A. Manzer, *Teachers and Politics*, Manchester University Press, 1970, cap. 1.
7. "Financing Education Digest", *Education* 22 June 1973, Supplement p. vii.
8. For the long-term trend, see J. Vaizey and J. Sheehan, *Resources for Education*, Unwin University Books, 1968, cap. 8.
9. Cmnd. 5174, paras. 24–26.
10. Cmnd. 5175, paras. 39–41.
11. Cmnd. 5174, para. 18.
12. D.E.S. Circular 2/73, although primarily concerned with building programmes, seems to establish the same broad criteria of multiple deprivation as have been used in the Urban Programme—which imply discrimination.
13. Report of the Expenditure Committee, Further and Higher Education, H.o.C. 48–1, 1972–73 Session.
14. The 1972 English Education White Paper (Cmnd. 5174) for the first time established target staffing norms for the whole of higher education, including the universities as well as for the schools.
15. "Resources for Learning", address to the 1973 North of England Education Conference, reprinted in *Educational Administration Bulletin*, Vol. 2, No. 1.
16. See J. G. Griffith, *Central Departments and Local Authorities*, R.I.P.A., 1966, cap. 2.
17. *Op. cit.* n. 6, p. 149.
18. The educational effect of smaller classes is on the research evidence open to some doubt in any event.

Response: D. P. J. Browning

I am sure we all regret Professor Fowler's illness because his Paper is very closely argued, it's not light reading, and I think we should have been able to give it much more care and attention if we had had it more in advance, and I think we should all have welcomed the opportunity of a detailed discussion of this paper with him. However, the situation which we are confronted with today is that some of us only received the Paper this morning. Therefore, to aid your instant digestion of this heavy material, and I am going to attempt to indicate briefly the essential argument of the paper; and then to help your critical consideration of the argument, I am going to make a few comments, with Mr Davies following, to help the discussion begin.

Now Professor Fowler, in considering the problem of the Management of Resources in British education, has started off by pointing out the partnership which exists in running the system, the partnership between central government, local government and the organised teaching profession. He also calls attention to the encouragement now being given to increased participation in running the system by parents and local communities.

Well, with this starting point he then goes on to describe the system of central planning and control of public expenditure on education exercised by central government. He describes, first of all, the annual expenditure surveys, which are published each year in the autumn. These surveys

anticipate the likely expenditure on the education service in the financial year ahead, but also this expenditure is projected forward for five years on the basis of the policy trends which are at this point of time visible. Beside this, he also describes P.A.R. as it is called—Programme Analysis and Review. This is the means by which central government reviews projections and objectives, and how progress towards them is being made. Well, having done all this, Professor Fowler spends considerable time in examining the inadequacies of this system. The first point he makes is that whilst the public expenditure surveys are undertaken annually, the five-year forecasts change from year to year and he produces a table showing the changes which have appeared in recent White Papers without any explanation at all. The policies indicated in the surveys—the projects which central government have in mind—are carried out by local authorities with financial assistance provided through the rate support grant. The rate support grant is calculated every two years, but is adjusted in the light of changes and after much arguing and in-fighting every year. The important thing to realise is that the rate support grant is in no sense an earmarked grant. It is a general grant given to local authorities to dispose of as they think best and so in this process there is no guarantee that a local authority receiving its rate support grant will in fact carry out the policies which the central government has laid down.

So this is the situation: you have the annual public expenditure surveys with *five*-year projections, the rate support grant worked out every *two* years, but updated *annually*, and in addition you have continuous school and college building programmes, which are rolling programmes, operating on a *three*-year basis. Then for expenditure on furniture and equipment and youth service projects ("locally determined schemes" as they are known in the business), the total sums available to local authorities are determined by the Department of the Environment on a *yearly* basis. Well, here you see the difficulty of integrating in a coherent way all these different operations. Professor Fowler makes a very telling point: to make this situation worse, you have central government frequently using local government expenditure as an economic regulator.

Professor Fowler's conclusion is that resource planning by central government is imprecise and, this is his term, "not fully rational"; and he shows how in a large organisation like local government, it is in fact very difficult to achieve an integrated and systematic approach to public expenditure. (He makes a rather amusing but significant point about the recent White Paper on future educational expansion. You know that considerable amount of space was devoted to nursery education. Well, Professor Fowler has compared the English version of the White Paper with the Scottish version of the White Paper. He finds in the English version that advice is given that nursery units should be attached to existing primary schools, because for the children there would be no change of school involved. However, in the Scottish version the advice is directly opposite: young children are seen as not being able to cope with too many older children and so the advice is separate nursery establishments for them.)

Well, given the conclusion that resource planning by local government is imprecise and not fully rational, Professor Fowler asks the basic question: "Is it desirable that this situation should be realised?" In providing an answer to this question, he hesitates considerably and finally decides No, for three reasons. He considers that if there were greater certainty by central government in its planning of resources, this would be likely to lead to a diminution of autonomy and influence by local government and the teaching profession. He also thinks that if there were a greater certainty, there might be less sensitivity locally to changing needs and demands; and with greater certainty, he assumes firmer control. This would mean a narrowing of opportunity for decision by heads and colleagues in individual institutions.

Well, at that point I stop speaking for Professor Fowler, and myself join in, because my answer to this question: "Is it desirable that this situation should be realised?" is completely different. In my view, the present situation is deplorable. Just look at the expectations which the recent White Paper has raised about nursery education, staffing standards, in-service training and the development of higher education; and there is hardly anything at all in the White Paper on how all this is to be paid for.

Contrast this with the situation this autumn which confronts us who are working with local authorities, as we have to prepare our estimates for 1974–75. First of all, inflation is running at about 9%. Then next April for those authorities in England and Wales who are faced with reorganisation of local government, this is going to be a tremendous additional expense in staff, in new buildings, in compensation for loss of office, for very generous retirement arrangements to encourage those over 50 to go. There is all this, and it has never been costed. In addition, certain local authorities will be combining and there will be all the expenditure on harmonisation of policies and practices. Reorganisation will involve substantial additional expenditure next year but then, as Dr. Greer indicated this morning, discussions are now going on about rate support grant for the next financial year. He indicated that a plus of 7% is necessary for educational needs next year; yet the present state of negotiations indicates the Government is likely to make only a plus of under 5% available.

You can see from this example the major difficulties which are likely to face the education service from 1st April next year. Inevitably, there will be screams about this because the rates won't be able to take at one go all the implications of the present situation, and then the screams will go up about the inadequacies of local authorities. But behind it is a situation which is mostly of central government's making, with local authorities having the job of making the best of the difficulties. From this one example, I say that the present imprecision and illogicality in central government arrangements are no longer adequate. Furthermore, there is a strong move now in local government, encouraged by reorganisation, towards corporate management and this means a more rational and systematic approach towards the management resources. A common objective is that each authority should work out its broad strategy over a five year period, and then having got it clear, to de-centralise decisions as much as possible to the institutions involved. At the same time there is an attempt to ensure that flexibility remains within this framework to permit adjustments for changed circumstances. All this, in my view, is to be much encouraged within local authorities but this trend will not be encouraged, but rather frustrated and not taken seriously, if there is a continuing lack of realism and coherence and consistency in central government planning, and of inadequate funds being made available through the rate support grant for the policies and services which central government propounds. I have attempted to indicate the essence as I see it of Professor Fowler's paper. He has asked a basic question. In answering, he has come down on one side of the fence; I have come down on the other. Mr Davies is now going to look at it further.

Response: J. L. Davies

I find this paper a fascinating one to comment on, since it raises so many fascinating issues. Whilst agreeing with Peter Browning that there are national circumstances which are beyond our administrative control as institutions and local authorities, there may nonetheless be activities which we can undertake to cope with the situation in which we find ourselves, so well portrayed by the two previous contributors. There seem to be three major issues arising from Professor Fowler's paper, which I would like to develop further: the question of justifying expenditure for educa-

tional purposes; the manner in which choices or priorities are exposed; and the question of securing the commitment of the participants within the system to given courses of action. Let us now examine these in turn.

Justification

It is clear that the questioning of the use of resources in education is going to be a major issue of the next decade. This is particularly evident in the case of the non-educationalists who are concerned with planning and financial allocation, especially treasurers and the newly rampant chief executive officers in local authorities. All services are being rigorously asked to substantiate claims for more resources, and whilst in the past in education we have claimed a certain degree of immunity on the grounds of academic freedom and the fact that the birth-rate is beyond our control, the advent of corporate management, performance review sub-committees, etc., would seem to indicate that things are not going to be quite the same again. We are, therefore, forced to ask the question "how do we know whether our institutions are effective, and can we infer any relationships between a given input of expenditure, and a given outcome in terms of educational, cultural, social or economic achievement?"

Assessing the effectiveness of the educational institution is a difficult task at the best of times, and our technology of assessment is sadly imperfect. However, the following areas of investigation are worth recording.

(1) Professor Fowler makes the point that corporate management systems may "make both officials and elected members less sensitive to changing institutional, community and personal needs and demands". Thus, it may be inferred that the legitimacy of the education service's demands for more resources can be perceived as rather limited, and may be based on the professional's interest rather than that of the client. This is unfortunately true of several corporate management systems my colleagues and I have observed. Strangely enough, this may be because of a theoretical lapse —the failure to base a corporate system on an *open* system design, which forces attention on the nature of our communications with clients—the extent and objectivity of our information on the community, the effectiveness of institutions like governing bodies, parent-teacher associations, advisory committees, etc. There is, of course, likely to be a difference between the overt demands of pressure groups, and the needs of silent majorities and silent minorities, not given to vociferous protestations. Nonetheless, the point is that justification is clearly more convincing with a store of demonstrable evidence of need for resources.

(2) Justification may well need some "objective" measure of achievement. Thus far, this has been difficult to assess in the long term. It is one thing for us to produce students with a given qualification: it is another thing to demonstrate their worth to the community in educational, social or economic terms. One may attempt it through the economist's approach of rate of return studies, or manpower forecasting, which respectively suggest that a student's value to the community may be measured in terms of earnings; and that one may justify resources by identifying a projected need for given types of manpower. Some of these studies are helpful, particularly at national level, but thus far, not much has emerged useful in practical day-to-day justification for the local administrator.

(3) We may be glad to use other "objective" indicators that resources are needed, indicators particularly related to the peculiarities of the environment, or the nature of the learning and administrative process within the school. The ubiquitous staff/student ratio, or staff/pupil ratio has assumed primacy in this context. We have already heard in this conference of Mr McGarrity's fascinating paper, which includes "justifications" like the number of remedial children, in-service training, extra-departmental administration, etc., and of I.L.E.A.'s deprivation index, discussions on which include reference to pupil turnover, teacher stress, housing stress, disturbed children.

This notion of "abnormals" and formulae, whilst potentially confusing to the uninitiated, is nonetheless an important development which should lend weight to our arm.

Our observations thus far have been directed at a sort of self-defensive reaction. This ought not to obscure the fundamental point that the community has a right to expect that we use our existing resources effectively and with imagination. Periodically, a peep at the skeletons in our cupboard is highly desirable. For instance, when polytechnics began to look at their performance as a result of the Pooling Committee recommendations on Staff/Student Ratios for Advanced Level Work, several institutions found themselves with, for example, 25 science or engineering teachers too many, or, conversely, about 200 f.t.e. students too few. This is, of course, explicable in terms of the market downturn. What is not explicable is the absence of remedial action over the last five years—market development, the search for new activities, the failure to redevelop staff, the proliferation of options, and persistence in filling vacant posts with staff whose expertise was not likely to be in demand. It is also interesting that the search for new modes of learning may have been produced as much by economic rigours as by external experimentation. Being forced to justify, as Dr. Johnson once said, in a slightly different context, "concentrates the mind wonderfully".

The Exposure of Choices and Priorities

We are often inclined, in education, to conceive of the universe as being bounded by the edge of the school playing field, or a sea of Forms FE21. We sometimes assume that if there is a community or client problem, an additional input of resources to be deployed by the education department or institution will surely put it right. This need not necessarily be so, since the root cause of the problem may not be capable of being resolved by unilateral action by educationalists, though they may very well have a large part to play. Thus, the dialogue with other local authority officers in Recreation and Leisure, Social Services, Housing, Industrial Development, and maybe Consumer Protection in terms of problem definition, pooling information, setting compatible and interrelated objectives, joint activity at field level, joint evaluation, etc., can only be to the benefit of the client in the long term. One of the heartening things I observed recently was the sight of a director of education being hotly defended in committee by a director of social services, housing manager and industrial development officer, on the grounds that his plans for pre-school provision were so pertinent to their own objectives that any dilution of resources would create serious authority wide repercussions. Corporate management is not just a set of techniques: it should be a state of mind.

The current shortage of resources and the decline in the tax-base in Inner City areas, clearly mean that we have a problem of choice in authorities and institutions: what to do, and what not to do. What worries me a little is that our decision-making is being made more difficult, and our understanding of consequences blurred, by potentially unhelpful aspects of the decision and budgetary process. Let me offer a few illustrations:

(1) Several authorities have encountered difficulties in resolving problems in the 16–19 age group because of the separation of Schools and F.E. Burnham.
(2) Budgetary headings may be essential for budgetary control, but the separation of teaching staff salaries from non-teaching staff salaries and an absence of virement between the headings does not assist either economy or a judicious mix of resources. The legend is widely accepted that it is far easier to obtain teachers than clerical or technician staff, because of the differing sources of external control.

(3) Capital and revenue budgets are separated for good reasons of financial management. However, it is not unknown for committees of members and officers, dealing with each on separate occasions, to pass capital finance for a project, but refuse a revenue allocation. Project budgeting may be more meaningful to academics within institutions, also.

(4) Decisions on course developments in further education institutions normally do not include data on the cost implications of such activities, and the people mainly concerned with course design are normally not cost conscious, nor encouraged to be so. Cost consciousness is not necessarily incompatible with the capacity for educational innovation. This separation of educational decision-making from resource decision-making can also prove to be unhelpful. It is highly likely that a given range of educational objectives may be capable of being achieved through a range of alternative instructional models. These, in turn, are likely to have different cost implications. If it is possible to achieve these educational objectives by the least costly method, is this bad, or counter to academic freedom?

The machinery for making decisions in education may thus hold scope for improvement both at L.E.A. and institutional level.

Commitment

Implicit in Professor Fowler's paper is the significance of the behavioural basis to resource allocation and decision-making, and there is evidence of encouraging developments in this field. This is particularly evident in global budgeting, where the total permissible amount of expenditure is determined at the top, and where the incidence of expenditure, or cuts in expenditure is decentralised to appropriate levels in the organisation. This determination of the priorities at particular levels will undoubtedly lead to more commitment on behalf of the participants than is likely with an imposition of cuts from above; will develop participants' cost consciousness and sense of responsibility without sacrificing public accountability. One of the interesting features of the next year is going to be whether the movement toward "cost centres" can survive the economic stringencies and hardships likely to be contained within the Rate Support Grant negotiations. There is precedent for assuming that tighter economic controls often mean tighter managerial control. This need not be so. We shall see what redefinition of "public accountability" and "academic freedom" may be necessary.

This response to Professor Fowler's paper has been brief, but this is no reflection on the stimulation of the ideas contained therein.

Corporate Management—Challenge and Opportunity

A Summary of the Plenary Discussion in the Final Session of the Conference

E. A. Ewan

Discussion in the final session concentrated mainly on implications for education of the implementation of corporate styles of management at regional and divisional level in the new structure of local government, with particular emphasis on information, evaluation and accountability.

The first point made from the floor was that under a system of corporate management education would find it much more difficult to obtain resources than it had in the past. Where it had formerly been cushioned by the statutorily delegated powers of the Education Acts, competition with other local government services would now be direct and immediate. This lends weight and urgency to the argument that a really professional approach to resource management demands a critical, sound and well reasoned case for those resources allegedly required as well as careful assessment of the efficiency of their use. But it goes further; it requires much fuller exposition of the arguments to the elected members ultimately controlling the allocation and distribution of the resources, and a presentation in terms comprehensible to these members and to senior officials in other professional areas with whom the educationist will be competing for his share of the total available resources.

Information then, it was agreed, will be vital: not only information passed by the educational resource seekers to the decision-makers, but also information available in much more precise detail to the educationists themselves on which to build their case. Traditionally educationists had tended to concentrate too much on input of resources and pay too little attention to output. Evidence was now increasingly going to be required that monies already allocated had been well spent before serious consideration would be given to pleas for more.

This raised the question of how such improved information could be collected and presented to the local authority education officer and members. One suggestion was a greatly expanded corps of local authority inspectors, advisers or organisers to provide detailed and authoritative feedback, not only on what was required, but also on the utilisation of resources in the existing system. It was further argued that such a service could be maintained at quite reasonable cost, the figure suggested being less than 2% of the salary bill for the teaching force.

Instead of pursuing the implications of this type of approach, the conference passed straight on to consider the basic problem of evaluation and assessment. Expressing doubts about the ability of even a strengthened local inspectorate to meet the demands of the situation one member argued that the really important matter was to find a balance between saying on the one hand, quite rightly, that there are many educational objectives which not only are intangible and cannot be measured, but might suffer from the very attempt to measure them, and the opposite extreme of saying that because this is so we will not attempt to measure anything. Educationists should devote more energy to seeking solutions in terms of a consensus of people involved, of whether in their professional judgment this way of doing something is better than that. Unless some such conclusion could be reached, the speaker felt, the "money boys" would move in and, in the absence of agreed assessment of the relative merits of one course of action as against others, simply adopt the cheapest—and in the circumstances it would be difficult to blame them.

Other fundamental problems in evaluation were mentioned. First it was recognised that not all measurement in education could be expressed in quantitative terms, and that consequently, however difficult qualitative assessment might prove in practice, it was nonetheless a vital part of managerial responsibility. The second problem was that the distinction was not merely between what could be measured quantitatively and what could not, but that the effects of differing time scales in producing results, as, for example, between nursery and higher education, rendered many of the longer term effects incapable of meaningful assessment on a purely quantitative basis. A third concerned the value judgments involved in decisions affecting priorities of resource allocation among the various social services.

Accountability was then to be distinguished from measurability. While it is undoubtedly easier to render account of things precisely measurable, the responsibility at professional level to accept accountability for things less amenable to objective quantification remains unimpaired. Some debate ensued as to those to whom managers and decision-makers ought to be accountable. Apart from the obvious community and its elected representatives, some argued, on the basis of Professor Fowler's concluding plea for informed teacher opinion, that the profession at large had an important role in this respect. This was viewed with some interest as envisaging a much enhanced conception of the professionalism of the teacher, even if it seemed rather remote at present. At this point the chairman suggested that perhaps the idea of professional consultancy applied to the educational processes might prove helpful in developing the kind of ethos implicit in such a view of accountability. Perhaps because of pressure of time, the conference did not proceed to discuss the moral aspect of our ultimate accountability to the consumers—the young people themselves for whose education we assume responsibility.

Since the whole conference was conceived against the background of developing systems of corporate management and the consequent competition among the various services represented in the upper management structure, it was natural that some attention should have been devoted to exploring some of the conflicts involved. While it was widely recognised that educationists themselves competed with one another from area to area for the scarce staff resources available with some detriment to the overall well-being, some members pointed out that the same sort of argument could be applied to conflict of interest within the corporate management structure in a single authority. If the real beneficiaries of the system were acknowledged to be the children and young people it professed to serve, then the real interests of education and the other social services might in many cases be much less far apart than a parochial self-interest would lead each to assume. One example cited was the provision of nursery schools or classes and play groups, a service offering benefits both educational and social—inasmuch as these can be distinguished. The argument was then propounded that the work of one of the

services might well benefit from the input of resources into another service.

At this point Mr Davies interjected to admonish the conference on a further over-simplification. All day the term "corporate management" had figured large in the papers and discussion, but no one had defined it. In fact, said Mr Davies, there was not just one kind of corporate management, but several. A current research programme in his department had identified no less than eight different types, some extremely defederalised, some based on using the expertise of people in various participating departments, and some organised on the principle of an active, perhaps over-active, chief executive exercising very tight control on all the departments. Unfortunately, this comment came almost at the end of the session and there was no time for its further development.

In conclusion then, the discussion revealed general agreement that the present system abounds in untidiness and inconsistencies, many of them eradicable, but others more deep-rooted, stemming from the ultimate dilemma of national planned policy versus autonomous local control. What was needed was wider adoption of a management procedure of having the different services produce sets of policy options which could be costed and then evaluated in an acceptable professional context in order to facilitate the selection of an appropriate course of action based upon explicit criteria and procedures for decision-making. What precisely these criteria should be and how they should be developed were topics demanding a whole conference to themselves. Accordingly, the chairman at this point called on Mr Browning, in place of the absent Professor Fowler, to sum up the conference.

Envoi

D. P. J. Browning

Chairman, I think you will understand that at this point I especially regret that Professor Fowler isn't here. This is because I have now the job not only of winding up the discussion but also of making the last contribution for the conference today. In doing this in Edinburgh, I am very conscious that at the moment you've got a non-Scottish team confronting you!

In listening to the discussion, I have been very much reminded of Dr. Briault summing up last year's conference on staff development. Those of you who were there will remember the importance he attached to there being *a management thread*, as he called it, running through local education authorities from their education committee and education department, through their area offices, to their schools and other institutions. Whilst we haven't been discussing staff development this year, I think it's essential in this final session on the management of resources to stress again the importance of a management thread. Whilst some untidiness will be inevitable and can be improved on, I think it is vital that there should be an intelligible and devised management thread for the education service running from central government and the D.E.S., outwards to the L.E.A.'s, and from them to their schools and colleges. If this were achieved, one might in fact get more coherence and logicality and real sense of direction in the education service than I think we've got at the moment.

Looking back on our discussions today on the management of resources, we started off on staff resources in the secondary schools. Personally I very much welcome Scotland's initiative in producing staffing models. What I should be interested to know is whether central government is making funds available to ensure that local authorities in Scotland will in fact be able to achieve the staffing models set out in the report. We didn't hear much about this. Furthermore, Murray White complained about some of the irrational differences, as he put it, between L.E.A.'s in staffing in England; and I can't help wondering that if something like the Scottish example were followed, and we had similar models with a clear assurance that in the maze of the rate support grant arrangements, financial resources were there to achieve these models, then some of the difficulties which Murray White complained of would disappear. My guess is also that if this approach were adopted towards, for instance, ancillary assistance and standards of supplies in books, stationery, equipment and materials, which the Chairman has briefly touched on—if a similar approach were adopted there, with an assurance that within the rate support grant there were the necessary funds available, then resources, and sufficient resources for the education service overall, would be more likely to be forthcoming. As to the final discussion, Professor Fowler envisages that if better management is to be achieved for the education service, changed relationships will be necessary between central government and local authorities, and local authorities and the education institutions themselves. He, and other speakers, have indicated that it may perhaps be necessary to look at the sacred cow of school autonomy, for if we have better management and better communications, and a better supply of information about situations and overall strategy, this will enable decisions for institutions to be taken against a different background and perhaps produce a different view and different overall priorities. I think we come back again to this basic question of how to produce this management thread, as Dr. Briault termed it last year, but I'm applying it to the whole of the operation of the education service this year.

Several speakers have touched on the importance of the supply of adequate informed information, and I wonder whether at this point of time, with local government being reorganised and stronger local authorities coming into existence, if consideration shouldn't be given to the establishment of a Research and Intelligence Unit for the local authority associations so that they can match the expertise of central government in their statistics and projections—because at the moment local authorities go on in a very amateur and perhaps not always reliable way. The educational statistics produced by the treasurers' association have been quoted and these are notoriously unreliable. But I think that with more reliable information, perhaps a dialogue between local authorities and central government could take place on a more equal basis which could be of benefit to the whole education service.

And whilst we're thinking about schools and colleges in this situation, perhaps we should remember the national centre for school administration which has been established here at Moray House. Is it not possible that something similar should be considered for England and Wales? This is a topic, however, which we must leave now to be pursued elsewhere.